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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,
AND PLACES OF GROWTH:

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE ACADEMIES OF STOCKHOLM, TURIN, LISBON,

UPSAL, LUND, PHILADELPHIA, ETC.

PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

"VIRESCERE ACQUIRIT EUNDO."

VIRG.

VOL. V.

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MDCCXCVI.

ENGLISH BOTANY

COLOURED FIGURES

OF

BRITISH PLANTS

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS
AND PLACES OF GROWTH

AND OTHER USEFUL ADDITIONS

OCCASIONAL REMARKS

BY

JAMES EDWARD SMITH, M.D. & F.R.S.

MEMBER OF THE SOCIETY OF ARTS, AND OF THE LONDON, EDINBURGH, AND DUBLIN SOCIETIES OF MEDICAL AND NATURAL PHILOSOPHY.

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MDCCCXXVII.





SATYRIUM repens.

*Creeping Satyrion.**GYNANDRIA Diandria.*

GEN. CHAR. *Nectary* an inflated roundish bag behind the flower.

SPEC. CHAR. Roots fibrous, creeping. Leaves ovate, radical. Flowers leaning one way.

SYN. *Satyrion repens.* *Linn. Sp. Pl.* 1339. *Huds. Fl. An.* 387. *With. Bot. Arr.* 982. *Lightf. Fl. Sc.* 520. f. 22. bad. *Dickf. Dr. Pl.* 85.

ACCORDING to the custom we have hitherto adopted of beginning each volume with some peculiarly interesting plant, we here exhibit one of the most rare of the favourite Orchis tribe, for which we are obliged to James Brodie, esq. the gentleman who discovered *Pyrola uniflora* (t. 146.) in Scotland and communicated it to Mr. James Hoy, as Mr. Hoy himself has informed us since our account of that plant was published. This *Satyrion* grows in Alpine fir forests, not in "pastures and thickets." Our specimens were sent fresh from Scotland by the post, and came in perfectly good order, as plants of this tribe dry so very slowly.

The roots are perennial, truly creeping, not bulbous, very succulent, downy, running among moss, and attaching themselves to decayed fragments and leaves of fir in the manner of fungi. Leaves in tufts at the end of each runner, on broad sheathing footstalks, ovate, succulent, strongly 5 or 7-ribbed, and reticulated with transverse veins which are often brown, and the leaves are now and then prettily chequered with that colour. Stalks erect, 6 or 8 inches high, round, downy upwards, clothed with a few alternate sheathing bractæ, and terminated with an erect spike of numerous pale flesh-coloured fragrant flowers, leaning one way, but turning a little spirally round the stalk; each being accompanied by a lanceolate, concave, coloured, downy bractea, longer than the germen, which also is clothed with viscid downiness, as well as the three broader external petals. Haller describes the flower as having only three petals, besides the nectary, which Lightfoot copies, having probably never seen the plant alive, for his plate is excessively faulty. Mr. Sowerby found two internal lanceolate petals (as in the figure) which, like those of *Orchis ustulata*, are very difficult to be detected in a dried specimen, being "glued as it were" to the upper one, which the others are not by any means, though Haller says they are. Perhaps that great naturalist might make slight notes in the field, and confuse himself in copying them afterwards. Lightfoot's account is compiled from Haller's without acknowledgment. His whole book is nearly made up of such plagiarisms, and he is hence often deservedly led astray.

SATYRIUM repens.

Creeping Satyrium.

CYRILLUS D. D. D.

GK. CHAR. Very an inflated roundish bag behind

the flower.

SPEC. CHAR. Roots fibrous creeping. Leaves ovate,

radical. Flowers leaning one way.

SAT. SATYRIUM repens. Linn. Sp. Pl. 1339. Kluck.

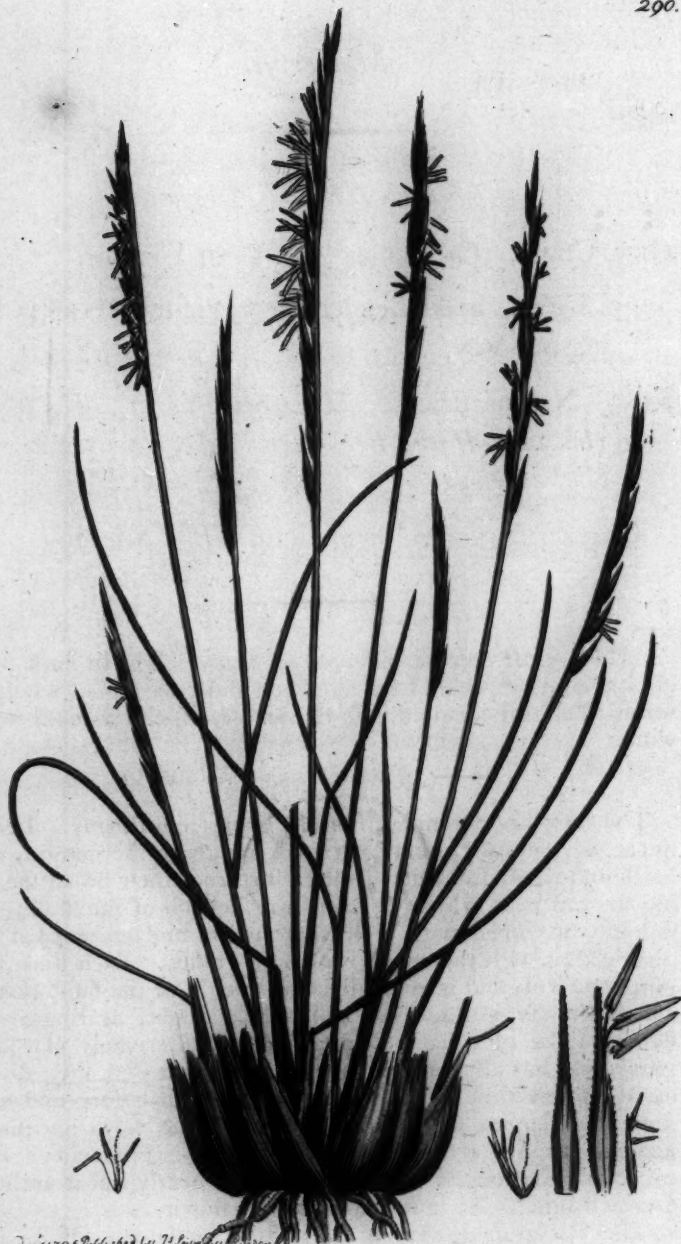
Fl. 387. With the 4th 082. Light M.

Sc. 320. 2. 22. bad. Kluck. D. Pl. 85.

According to the custom we have hitherto adopted of beginning each volume with some peculiarly interesting plant, we here exhibit one of the most rare of the favourite Orchid tribe, for which we are obliged to James Brodie, Esq. the gentleman who discovered *Pyrisa repens* (t. 146.) in Scotland and communicated it to Mr. James Hall, as Mr. Hall himself has informed us since our account of that plant was published. This *Satyrium* grows in alpine forests, not in "pastures and thickets." Our specimens were sent from Scotland by the post, and came in perfect good order, as plants of this tribe do to very slowly.

The roots are perennating, truly creeping, not bulbous, very succulent, bearing, bearing among roots, and attaching them to leaves to which they are attached, and leaves of it in the manner of a fan. Leaves are in the case of each runner, on broad, fleshy, leafless, strongly 2 or 3-ribbed, and sometimes with transverse veins which are often brown, and the leaves are now and then slightly chequered with that colour. Stalks erect, 6 or 8 inches high, round, hollow upwards, closed with a few alternate linear bristles, and terminated with an erect, little of numerous pale, flesh-coloured, fringed flowers, nearly one way, but turning a little finally round the stalk, each being accompanied by a lanceolate, concave, or pointed, downy bract, longer than the petal, which also is clothed with villous down, as well as the three bracts of the lateral petals. Haller describes the flower as having only three petals, besides the bracts, which I do not regard as petals, but as bracts, near to the point where the plant rises, for the plant is very fleshy. The flowers are toward two lateral bracts, petals as in the figure, which, like those of *Orchis*, are very difficult to be detached in a dried specimen, being "glued as it were" to the upper one, which the others are not by any means, though Haller says they are. Perhaps that great naturalist might make this note in the field, and conclude himself in copying them afterwards. Linnaeus's account is compiled from Haller's without acknowledgment. His whole book is nearly made up of such plagiarisms, and he is hence often detected by the way.





NARDUS stricta.

*Mat-grass.**TRIANDRIA Monogynia.*

GEN. CHAR. *Cal.* none. *Corolla* of 2 valves.

SPEC. CHAR. Spike slender, erect, the flowers all pointing one way.

SYN. *Nardus stricta.* *Linn. Sp. Pl.* 77. *Huds. Fl. An.* 22. *With. Bot. Arr.* 54. *Relb. Cant.* 21. *Sibth. Ox.* 33.

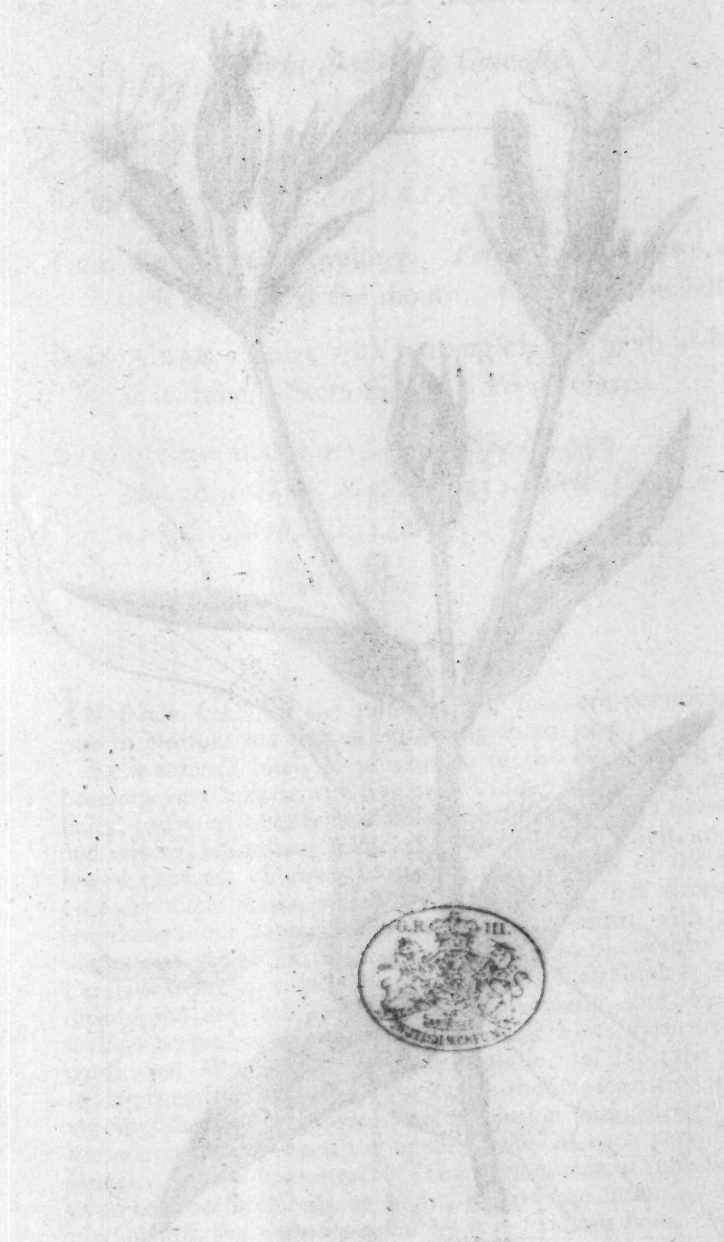
Gramen sparteum juncifolium. *Raii Syn.* 393.

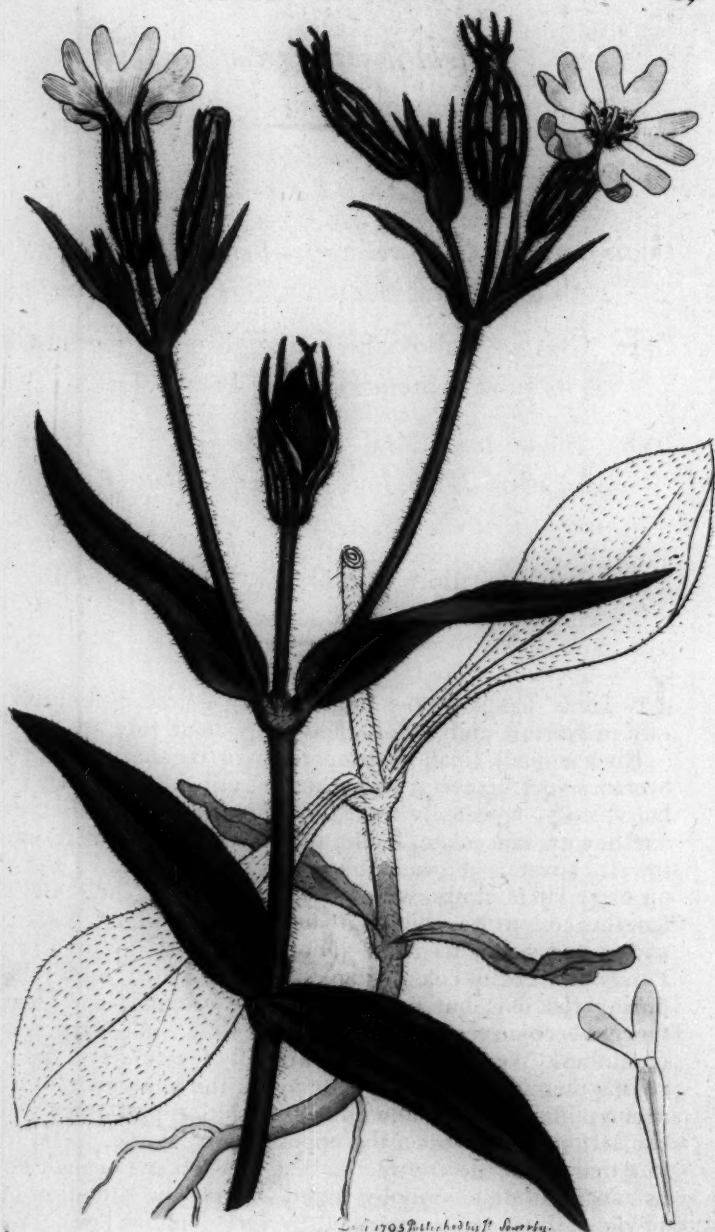
THIS grass may be observed on sandy heaths in most parts of England, especially in moist or moorish spots, where it forms thick tufts of rigid rush-like leaves, which remain through winter

———“bleaching in the northern blast.”

The roots are perennial, fibrous, strong and downy. Leaves linear, very narrow, acute, striated, rough in the margin, very harsh and rigid, suddenly divaricating from their broad sheathing striated base, which envelops the bottom of the stalk, and is itself enveloped with scales externally, and crowned at the divarication with the usual stipula of grasses. Each stalk supports one leaf, and is erect, striated, rough, of the same texture and harshness as the leaves, and a little longer, bearing a very slender spike of equally slender flowers, alternately placed in two rows, but all pointing one way, though very little divaricated at any time from the stalk, and both before and after flowering clasped close to it. Valves of the calyx unequal in length, purplish and rough in the margin. Filaments a little exceeding the longest valve, tipped with nearly linear antheræ. Germen small. Style solitary, slender, downy.

The Mat-grass flowers in May, June or later. Of its agricultural uses little can be said, for cattle in general refuse it; and though mats or baskets might be made of it, we are supplied from Spain with better grasses for those purposes, particularly *Stipa tenacissima*.





1795 *Pellaea hirsuta* Swartz.

SILENE noctiflora.

Night-flowering Catchfly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* swelling. *Petals* 5, with claws, and with a crown at the mouth. *Caps.* three-celled.

SPEC. CHAR. Calyx with ten angles, and teeth as long as its tube. Stem forked. Petals cloyen.

SYN. *Silene noctiflora.* *Linn, Sp. Pl.* 599. *Huds. Fl. An.* 189. *With. Bot. Arr.* 452. *Relb. Cant. Suppl.* 1. 13. *Sibth. Ox.* 140.

Lychnis noctiflora. *Raii Syn.* 340.

IN sandy fields of the midland and southern counties, not rare in Norfolk and Suffolk, flowering about July.

Root annual, small in proportion to the herb, which often becomes very luxuriant in a manured soil. Stem erect, round, hairy, leafy, repeatedly forked in the upper part. Leaves soft and downy, lanceolate, sessile, the lower ones broadest, and the lowest obovate. Flowers solitary at the divisions of the stem, on hairy viscid stalks, which are short at first, but afterwards lengthened out to about an inch. Calyx white, with green angles and veins, its teeth almost as long as the tubular part. Petals of a cream colour tinged with red, their limb rolled in during the day, but unfolding in the evening, and then the flowers become very sweet-scented, at least while warm weather continues. We believe each flower lasts several days, the petals rolling themselves up every evening till the impregnation is fully accomplished. If so, how is this involution performed? Does the action of light upon the upper surface of each petal stimulate that surface to contract? The phenomena of such flowers as expand or smell only by night, deserve the attention of the physiologist, for they are ruled by very constant laws. We recommend them to the evening meditations of the philosophic recluse, at "that best hour of musing" when the mind turns to Nature and its Author with peculiar complacency.

STILBNE noctiflora.

Night-flowering Catchfly.

ORCHARDIA virginica.

GEN. CHAR. Calyx swelling. Petals 5, with claws and with a groove at the mouth. (See first column).

SPEC. CHAR. Calyx with ten angles and teeth as long as its tube. Stem forked. Petals cloven.

STYL. Stilbene noctiflora. Linn. Sp. Pl. 500. Hall. Fl.

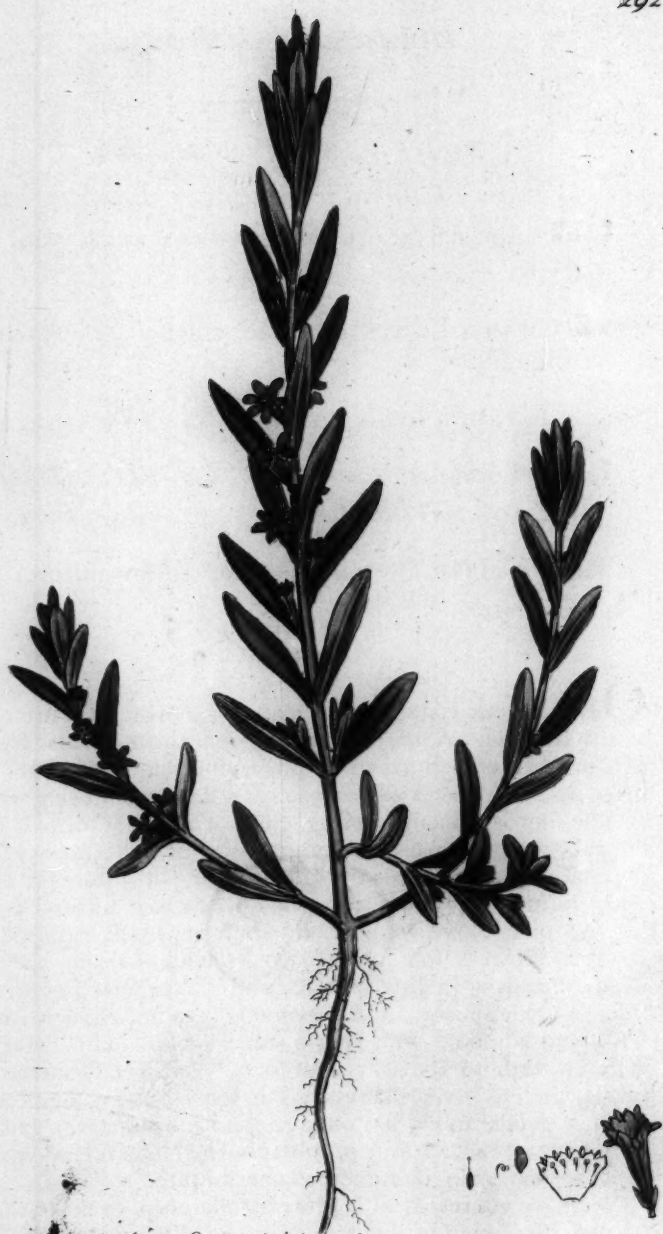
Am. 189. Wild. Bot. Bet. 452. Webb. Cat. Suppl.

1. 187. Spill. Or. 140.

Trichomanes noctiflora. Linn. Sp. Pl.

IN sandy fields of the midland and frontier counties, not rare in Norfolk and Suffolk, flowering about July.
Root annual, small in proportion to the height, which often becomes very luxuriant in a manured soil. Stem erect, leafy, hairy, leafy, repeatedly forked in the upper part. Leaves lobed and downy, lanceolate, sessile, the lower ones sessile, and the lower ovate. Flowers solitary at the division of the stem, on hairy stalks, which are short at first, but afterwards lengthened out to about an inch. Calyx white with green angles and veins, the teeth almost as long as the corolla tube. Petals of a cream colour, fringed with red, their limb rolled in during the day, but unrolling in the evening, and then the flower becomes very sweet-scented, at least while warm weather continues. We believe each flower lasts several days, the petals rolling themselves up every evening till the impregnation is fully accomplished. It is, how is this impregnation effected? Does the action of light upon the upper surface of each petal bring late that surface to contact? The phenomenon of such flowers as expand or smell only by night, deserve the attention of the physiologist, for they are ruled by very constant laws. We recommend them to the evening meditations of the philosopher, to be "that half hour of musing," when the mind turns to Nature and its Author with peculiar complacency.





Novi 1798 Published by J. P. Knapton London

LYTHRUM hyssopifolium.

Hyssop-leaved Grass-poly.

DODECANDRIA Monogynia.

GEN. CHAR. *Cal.* with 12 teeth. *Petals* 6, inserted into the calyx. *Capsule* with 2 cells, and many seeds.

SPEC. CHAR. Leaves alternate, linear-lanceolate. Stamina fix.

SYN. *Lythrum hyssopifolium.* *Sibth. Ox.* 149.

L. *Hyssopifolia.* *Lim. Sp. Pl.* 642. *Huds. Fl.* An. 206. *With. Bot. Arr.* 490. *Relb. Cant.* 183.

Salicaria Hyssopi folio latiore, & angustiore. *Raii Syn.* 367.

ONE of our rarer English plants, for which we are obliged to the Rev. Mr. Abbot of Bedford and the Rev. Mr. Hemsted of Newmarket. It grows in pits and ditches which are partly dried up, or in places where water has stagnated during winter.

The root is annual, tapering, and not much branched. Stems several; the principal erect, often branched; lateral ones spreading and curved upwards; all square, purplish, smooth, clothed with numerous, alternate, smooth, entire, linear-lanceolate leaves, some of which now and then approach to an elliptical figure. Flowers solitary, axillary, sessile, delicate and short-lived, appearing in July, purple, and of a regular figure, as we think all true species of *Lythrum* ought to be, though Linnæus has admitted some with very unequal petals. They have generally 12 teeth to the calyx, alternately erect and spreading, 6 petals, and as many stamina; but some flowers have only 10 teeth, 5 petals and 5 stamina, or (as Linnæus says) exclude a sixth part of the natural number in their fructification. The seeds are exceedingly numerous and minute.

We have ventured, with professor Sibthorp, to make the Linnæan substantive specific name into an adjective, as on former occasions where it could be done.

LYTHRUM hyssopifolium.

Hyssop-leaved Cross-jew.

BOECKLANDIA ~~hyssopifolia~~

GERM. CHAM. Cal. with 10 teeth. Petals 6, inserted into the calyx. Corolla with 4 cells, and many seeds.

SPERG. CHAM. Leaves alternate, linear-lanceolate. Stem annual.

SPERG. Lythrum hyssopifolium. Sibth. Ox. 146.

L. Lythrum. Sibth. Ox. 146. Pl. Græc. 146. Pl. Græc. 146. Pl. Græc. 146. Pl. Græc. 146.

Silene Lythrum. Sibth. Ox. 146. Pl. Græc. 146. Pl. Græc. 146. Pl. Græc. 146.

6-367

ONE of our stars Lythrum, for which we are obliged to the Rev. Mr. Abbot of Exeter and the Rev. Mr. Hemsted of Newmarket. It grows in pits and cracks, and is usually dried up, or in places where it has been mowed. The root is annual, erect, and not much branched. Stems several; the principal ones, with branched, linear-lanceolate, and only at the ends, all linear, pungent, two-toothed, with numerous, alternate, linear-lanceolate leaves, some of which are and then approach to an elliptical form. Flowers solitary, tubular, bell-shaped, and about half an inch long, and of a light blue, as we think all true species of Lythrum ought to be. The leaves are somewhat more with very notched. They have some very small teeth in the calyx, extremely erect and preceding the petals, and as many stamens; but some flowers have only 10 stamens, and 2 linear, or (as I have said) exclude a fifth part of the natural number in their fructification. The seeds are exceedingly numerous and minute. We have ventured with hesitation to make the Lythrum Lythrum, being into an adjective, as on former occasions where it could be done.

1891
LICHEN glaucofulgens

CRYPTOGAMIA, Lich.

Thos. C. M. Malt, 412 West 14th St.

From a south shore of or subarctic, in which the

lichen is found in the same and glaucous

lichen is found in the same and glaucous

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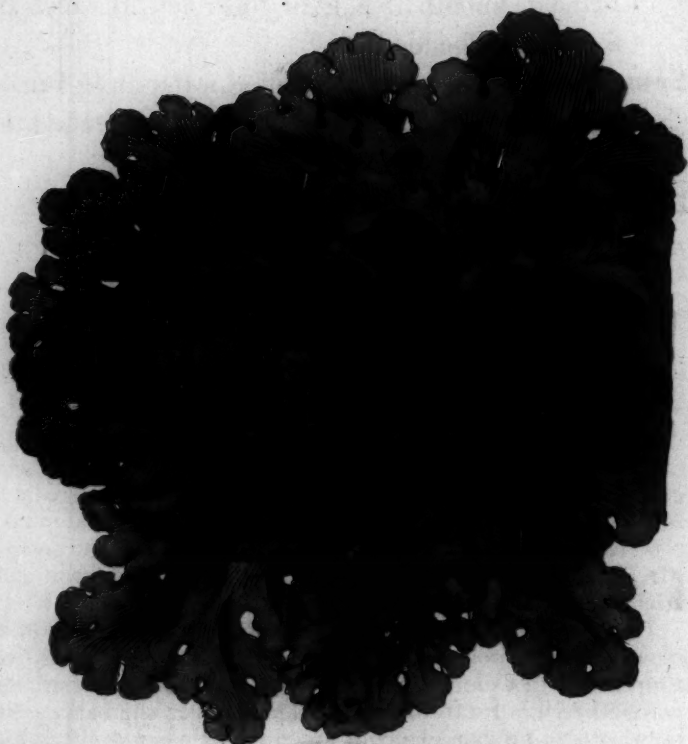
lichen is found in the same and glaucous

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lichen is found in the same and glaucous





Des. 11795 Published by J. S. Saverby London.

LICHEN glomuliferus.

*Ball-bearing Lichen.**CRYPTOGAMIA Alga.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Foliaceous, creeping, even and glaucous above, bearing dark-green, branched, tufted excrescences. Shields tawny.

SYN. Lichen glomuliferus. *Lightf. Scot.* 853.

L. laciniatus. Hudf. Fl. An. 544. *With. Bot. Arr.* V. 3. 198.

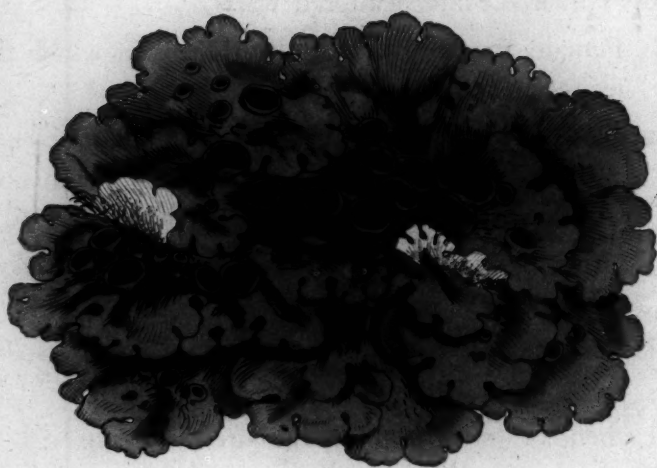
Lichenoides subglaucum cumatile, foliis tenacibus, eleganter laciniatis. Dill. Musc. 197. t. 26. f. 99.

THIS is by far the largest and broadest *Lichen* known, often measuring two or three feet in diameter, and therefore Scopoli's original name *amplissimus* ought not to have been changed; but Mr. Lightfoot's is so apt, and has been so generally adopted by practical botanists, we retain it in preference to that given by Mr. Hudson, *laciniatus*, which is not expressive nor discriminative at all.

Lichen glomuliferus is found on the trunks of trees in old mountainous woods in England, Scotland, and Wales, very abundantly in Colonel Johnes's woods at Hafod, where ours was gathered. Its fronds spread loosely over the bark, a little imbricated, of a pale glaucous green above when moist, whitish grey when dry, very smooth, scarcely ever rugged; beneath downy, light reddish brown, the margin white. They are elegantly lobed and scalloped, the lobes being all round, and the little sinuses between them often quite circular. The shields are numerous, and by no means very rarely produced, not large, a little elevated, their margin smooth, of the colour and substance of the frond, out of which indeed it is formed by the gradual elevation and increase of the shield from a small immersed point; the disk is concave, of a brownish orange-colour, darker when dry. Besides these shields remarkable tufts or balls, of a dark-green soft branchy substance, with a solid white stem, arise out of the frond. These are more frequent than the shields, found on the same individual plants, and distinguish the species, being supposed to have a share in the fructification. We will not add any new conjectures to those to be found in Withering and Lightfoot, in both which authors this curious plant is well described.

18





LICHEN læte-virens.

Bright-green Lichen.

CRYPTOGAMIA *Alga.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Foliaceous, creeping, obtusely lobed and crenated; bright green above; whitish, downy and without veins beneath. Shields tawny.

SYN. Lichen læte-virens. *Lightf. Scot.* 852. *Dickf. Dr. Pl.* 23.

L. herbaceus. *Hudf. Fl. An.* 544. *With. Bot. Arr.* V. 3. 195.

Lichenoides arboreum cinereo virens, tenue & læve ubique, scutellis minoribus. *Raii Syn.* 73.

L. læte virens, scutellis fulvis. *Dill. Muse.* 195. t. 25. f. 98.

THIS *Lichen* is next akin to that in our last plate, but a perfectly distinct species. We prefer Mr. Lightfoot's name also in this instance, because it has been most generally received, and is expressive of the peculiarly beautiful green which this plant assumes when moistened. Besides, *herbaceus* in botanical language is too generally used to express duration, to be intelligible when applied to colour.

The species before us is found in similar places with the preceding, but more frequently, especially in Derbyshire and Westmoreland. It differs from that in being thinner, less extensive, without the tufted excrescences, and of a very different colour. When dry it becomes brown. The shields are copiously produced, a little elevated, their margin smooth, turned in, their disk deep orange, turning brown in drying.

LICHEN luteo-virens.

Bright-green Lichen.

CARPOTOGAMIA Ag.

GEN. CHAR. Male, scattered hairs.

Female, smooth fields or tubercles, in which the seeds are imbedded.

STEM. CHAR. Polycarpous, creeping, oblongly lobed and circinate; bright green above; whitish below and without wide deeply sinuate margin.

STEM. Lichen luteo-virens. Light. 200. 852. Disk. 200. 852.

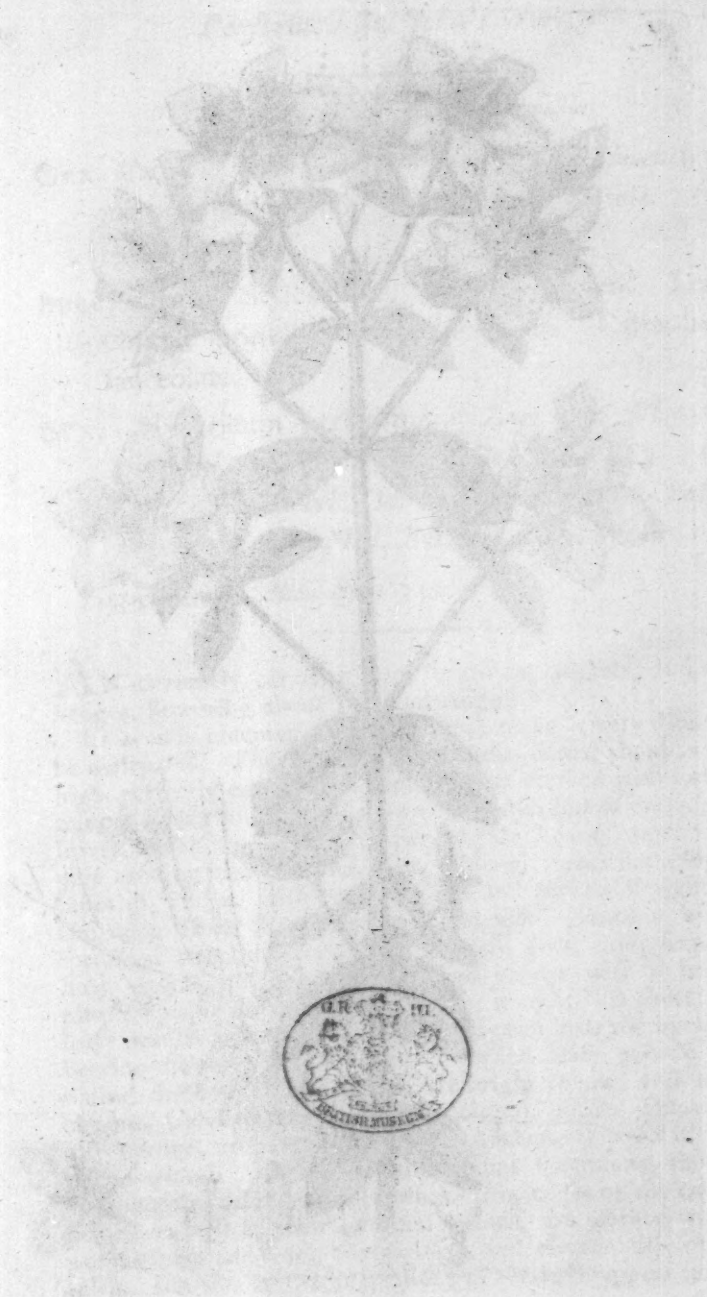
I. herbaceus. Light. 200. 854. U. 200. 854.

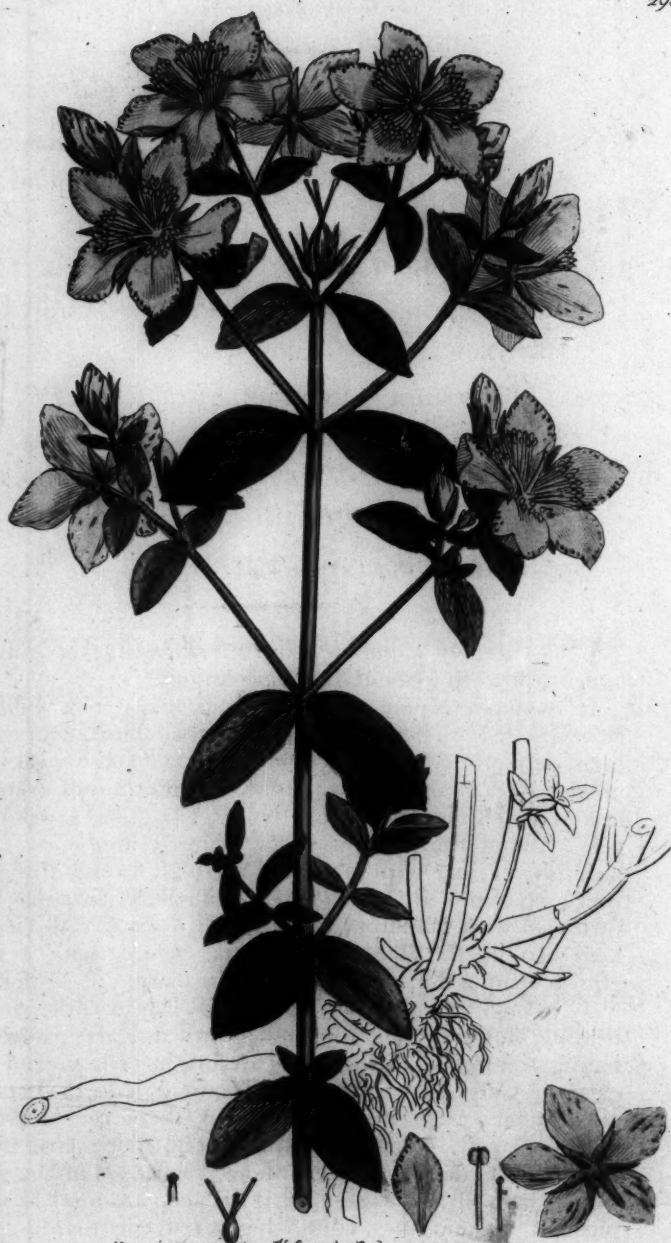
Lichens, adhering closely to the rock & have tubercles, smooth, minute. Light. 200. 853.

L. luteo-virens, tubercles minute. Light. 200. 852.

THIS Lichen is next seen to that in our last plate, but is perfectly distinct species. We prefer Mr. Lightfoot's name to this instance because it is the most generally received, and is expressive of the peculiarly tuberculate green which this plant assumes when tubercled. Besides, as we have in botanical language is too generally used to express fungus, so it is intelligible when applied to colour.

The species before us is found in similar places with the preceding, but more frequently, especially in Dorsal and Westward. It differs from that in being thinner, less extensive, about the middle exact texture, and of a very different colour. When dry it appears brown. The fields are typically produced, a little elevated, their margin smooth, raised in their deep orange, turning brown in drying.





Jan 1790 Published by J. Bowerby London

HYPERICUM perforatum.

*Perforated St. John's Wort.**POLYADELPHIA Polyandria.*

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Filaments* numerous, united at the base into 3 or 5 sets. *Cap-
sule* rotundish.

SPEC. CHAR. *Styles* three. *Stem* two-edged. *Leaves* obtuse, sprinkled with pellucid dots. *Calyx-leaves* lanceolate.

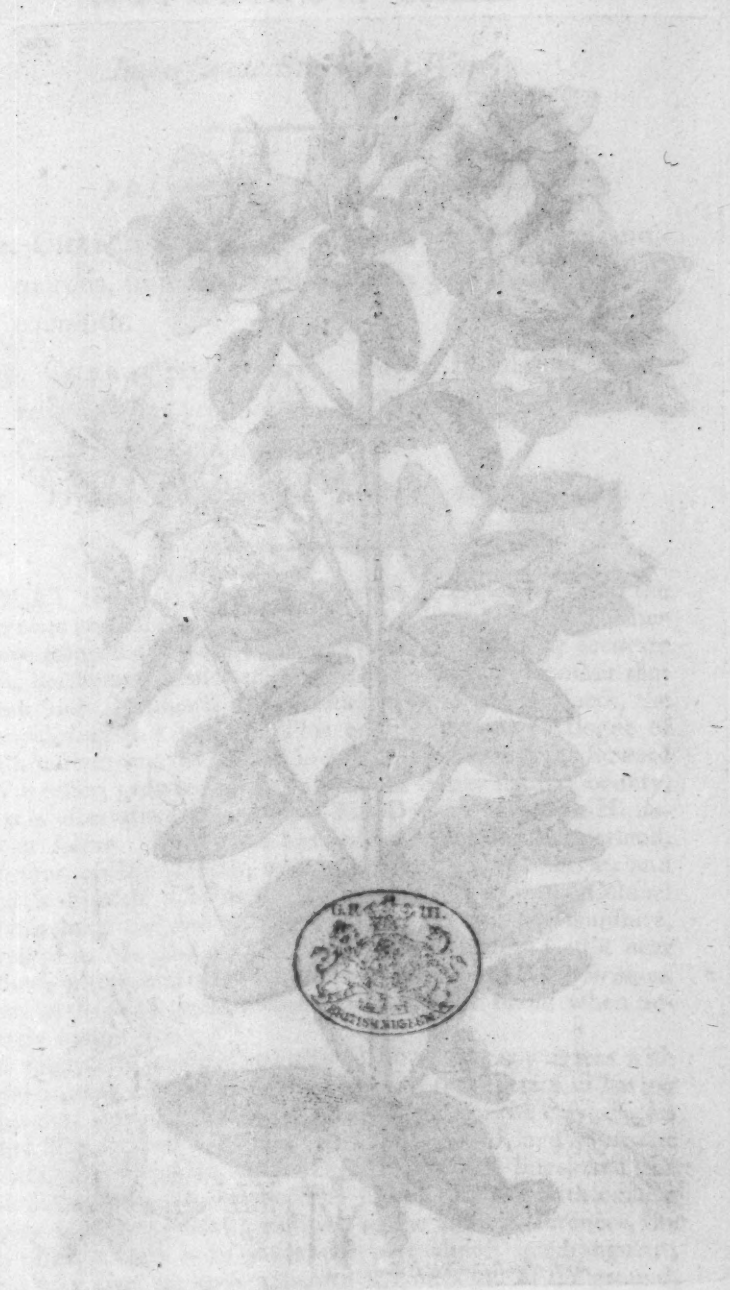
SYN. *Hypericum perforatum.* *Linn. Sp. Pl.* 1105, *Huds. Fl. An.* 333. *With. Bot. Arr.* 813. *Relh. Cant.* 288. *Sibth. Ox.* 234. *Curt. Lond. Fasc.* 1, t. 57. *Woodv. Med. Bot.* 29. t. 10.

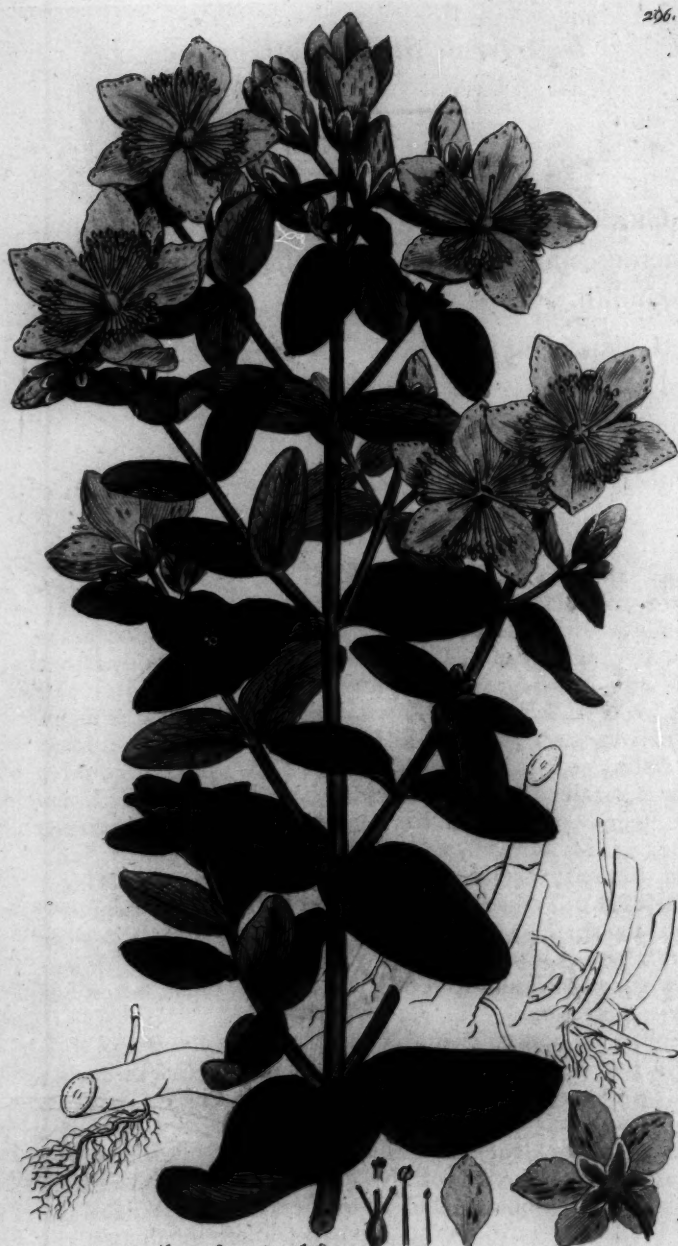
Hypericum. *Raii Syn.* 342.

AN extremely common plant in groves, thickets, and under hedges, flowering about July and August.

Its woody creeping perennial roots make it very difficult to be extirpated. They throw up numerous stems, about two feet high, perfectly erect, leafy, roundish, but marked with two prominent lines running down from the insertion of every pair of leaves, which render the stem two-edged. Leaves opposite, each pair crossing those below them, oblong, somewhat elliptical, bluntish, entire, with one main rib and several straight veins springing from it, paler and somewhat glaucous beneath, sprinkled with numerous green pellucid dots, easily seen when held against the light, and marked besides with a few dark purple opaque dots, especially on the margin. A short simple leafy branch arises from the bosom of each leaf, the upper ones bearing flowers, and forming a forked leafy panicle terminating the stem. The flowers are bright yellow, and not inelegant. Calyx-leaves lanceolate, pointed, entire. Petals entire at one edge, crenate at the other. Antheræ tipped with a dark purple gland. Stigmas whitish in our specimens, though by some writers described as crimson. The edges of the calyx and petals, as well as their external surface, are marked with dark purple spots and lines, containing a red essential oil soluble in spirits, but the aromatic qualities of the herb appear not to be confined to these spots.

HERBARIUM





Jan. 1796 Published by J. L. L. London

HYPERICUM dubium.

*Imperforate St. John's Wort.**POLYADELPHIA Polyandria.*

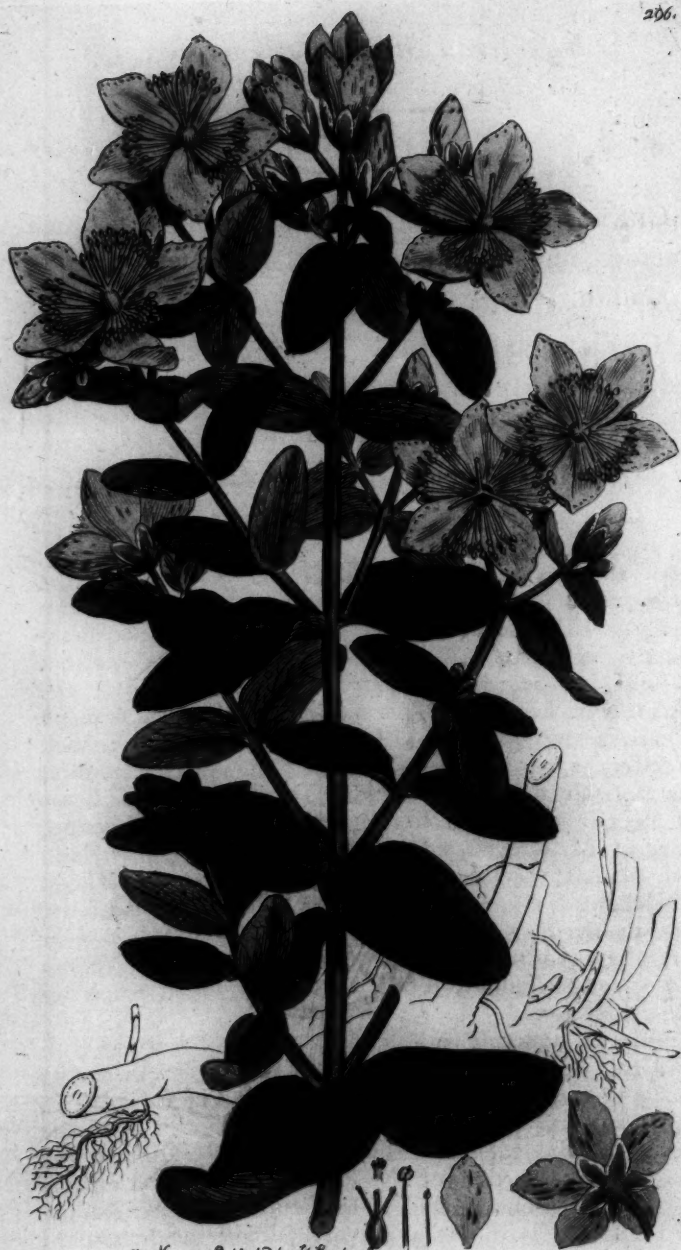
GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Filaments* numerous, united at the base into 3 or 5 sets. *Capsule* roundish.

SPEC. CHAR. *Styles* three. *Stem* obsoletely four-edged. *Leaves* obtuse, destitute of pellucid dots. *Calyx-leaves* elliptical.

SYN. *Hypericum dubium.* *Leers Fl. Herborn.* 165.

THAT this is a most distinct species of *Hypericum* from the *perforatum* and all others there can be no doubt, though it seems to have escaped the notice of every author except the accurate Leers, not being mentioned even as a variety by any other that we can find. Neither is it, as Leers was induced to suspect, the *H. perforatum* of Linnæus. This addition to our catalogue of British natives was discovered in July 1794 by Dr. John Seward of Worcester, growing plentifully about Sapey in that county, and was ascertained by the Rev. Mr. Douglas to be the *H. dubium* of Leers. Dr. Smith has received it from Switzerland, by favour of Mr. Davall, under the same denomination, and found it himself very abundantly last August about Colonel Johnes's delightful and romantic place at Hafod, Cardiganshire, as well as in Mr. Knight's fine woods at Downton Castle near Ludlow, where it is much more common than the *perforatum*. It may perhaps be found in other parts of our island when accurately sought for.

In habit, size, and colour, this plant very nearly agrees with the *perforatum*, but differs essentially from that species in having no pellucid dots apparent on the leaves, and in the calyx-leaves being elliptical and obtuse. The latter indeed, and even the bractææ, are sprinkled with pellucid dots and lines, and the petals, as well as the edges of the leaves, marked with opaque purple, as in that; but in addition to the above differences, the stem of *H. dubium* is in the upper part almost quadrangular; and it may even be known before it comes out of the ground, by the much more vivid red of the young shoots.



Jan. 1796 Published by J. Kew London

HYPERICUM dubium.

*Imperforate St. John's Wort.**POLYADELPHIA Polyandria.*

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Filaments* numerous, united at the base into 3 or 5 sets. *Capsule* roundish.

SPEC. CHAR. *Styles* three. *Stem* obsoletely four-edged. *Leaves* obtuse, destitute of pellucid dots. *Calyx-leaves* elliptical.

SYN. *Hypericum dubium.* *Leers Fl. Herborn.* 165.

THAT this is a most distinct species of *Hypericum* from the *perforatum* and all others there can be no doubt, though it seems to have escaped the notice of every author except the accurate Leers, not being mentioned even as a variety by any other that we can find. Neither is it, as Leers was induced to suspect, the *H. perfoliatum* of Linnæus. This addition to our catalogue of British natives was discovered in July 1794 by Dr. John Seward of Worcester, growing plentifully about Sapey in that county, and was ascertained by the Rev. Mr. Douglas to be the *H. dubium* of Leers. Dr. Smith has received it from Switzerland, by favour of Mr. Davall, under the same denomination, and found it himself very abundantly last August about Colonel Johnes's delightful and romantic place at Hafod, Cardiganshire, as well as in Mr. Knight's fine woods at Downton Castle near Ludlow, where it is much more common than the *perforatum*. It may perhaps be found in other parts of our island when accurately sought for.

In habit, size, and colour, this plant very nearly agrees with the *perforatum*, but differs essentially from that species in having no pellucid dots apparent on the leaves, and in the calyx-leaves being elliptical and obtuse. The latter indeed, and even the bractææ, are sprinkled with pellucid dots and lines, and the petals, as well as the edges of the leaves, marked with opaque purple, as in that; but in addition to the above differences, the stem of *H. dubium* is in the upper part almost quadrangular; and it may even be known before it comes out of the ground, by the much more vivid red of the young shoots.

HYPERICUM. Dublin.

Importante St. Jakob: Wort.





Jan 7. 1796. Published by J. Smith, London.

AQUILEGIA vulgaris.

Common Columbine.

POLTANDRIA Pentagynia.

GEN. CHAR. *Cal.* none. *Petals* 5. *Nectaries* 5, horn-shaped, alternate with the petals. *Capsules* 5, distinct.

SPEC. CHAR. *Nectaries* equal to the petals; their horns incurved. *Leaves* and *stem* smooth.

SYN. *Aquilegia vulgaris.* *Linn. Sp. Pl.* 752. *Huds. Fl. An.* 235. *With. Bot. Arr.* 562. *Relb. Cant.* 207. *Sibth. Ox.* 169.

A. flore simplici. *Raii Syn.* 273.

COLUMBINES in a wild state are found in woods, thickets, and pastures in several parts of England. They are not rare in Derbyshire and Westmoreland. Mr. Wagstaffe of Norwich sent us a specimen from that neighbourhood, where, especially about the meadows at St. Faith's Newton, the plant grows perfectly wild, flowering in June. From its frequency in gardens, it sometimes occurs (of various forms and colours) about dunghills, but is seldom permanent in such places.

The root is perennial. Stem not very leafy, branched, each branch bearing a solitary drooping flower. Leaves mostly radical, on very long foot-stalks, twice ternate, obtusely lobed, glaucous beneath, smooth; those on the stem nearly sessile, and more simple, the uppermost consisting of 3 entire and acute leaflets. Sometimes the stem bears only such. The stem is purplish and glaucous. Flowers purple, rarely rose-coloured. Germens invested with a plaited lacerated membrane.

In mountainous situations what the plant loses in luxuriance it gains in neatness and elegance of foliage, and then the nectaries are sometimes found rather less curved. Hence Mr. Hudson thought he had discovered *A. alpina* in Westmoreland; but on seeing Dr. Smith's specimens of the true Alpine Columbine from Mount Cenis, he allowed it to be quite distinct from any thing he had observed of British growth. Our Flora therefore can properly boast but one species of this genus.





Jan. 17. 96 Published by J. St. Saverby London.

CRATÆGUS torminalis.

*Wild Service Tree.**ICOSANDRIA Digynia.*

GEN. CHAR. *Cal.* in 5 segments. *Petals* 5. *Berry* inferior, with 2 seeds.

SPEC. CHAR. Leaves somewhat heart-shaped, serrated, seven-lobed; the lower lobes divaricating.

SYN. *Cratægus torminalis.* *Linn. Sp. Pl.* 681. *Huds. Fl. An.* 214. *With. Bot. Arr.* 511. *Sibth. Ox.* 156.

Mespilus Apii folio sylvestris non spinosa, seu Sorbus torminalis. *Raii Syn.* 453.

THIS tree is most frequent in the north-west and midland counties, though also found here and there in Essex, Suffolk, and Norfolk. We received it wild from Mr. Woodward.

It is of considerable size, but of slow growth, and the wood is consequently hard. The bark is smooth and ash-coloured. Young branches green and slightly downy, clothed with alternate handsome smooth leaves, of a firm not succulent substance, always more or less accurately 7-lobed, reticulated with small veins, serrated, deciduous. Flowers numerous, in large terminal cymose panicles, appearing early in May; their flower-stalks and calyx downy; petals cream-coloured; styles 3, 4, or 5, and the seeds in proportion, an instance (among many others) how very ill-founded the orders and genera are of Linnæus's *Icosandria Digynia*, *Trigynia*, and *Pentagynia*, as Haller and his disciples long ago contended.

The fruit of this tree ripens late in autumn, and forms panicles of brown punctated berries, larger than those of the Hawthorn, which, when the frost has touched them, are of an exceedingly pleasant acid flavour, and are sometimes sold in the London fruit-shops. They are esteemed strengthening to the stomach and bowels. Old Tragus, whose figures and their accompaniments sometimes express the virtues of plants with more truth than decorum, gives a ludicrous exhibition of two little boys under this kind of Service tree, p. 1010, in order to illustrate its (apparently very powerful) effects in expelling worms.

CRATGEUS terminalis

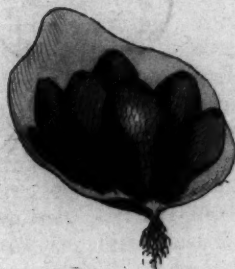
Wild Service Tree.

Gen. C. and Cal. in a horizontal Year 2. Berry in
 flower with a leaf.
 Sp. C. and Cal. leaves somewhat heart-shaped, serrated
 (serrated); the lower lobes diverging.
 Syn. C. and Cal. leaves. Year 2. P. 188. 1888.
 P. 188. 1888. 1888. 1888. 1888. 1888. 1888. 1888.
 Melphie. The following are the names of the
 terminalia.

U.S. DEPT. OF AGRICULTURE



RECEIVED



SPHÆROCARPUS terrestris.

Reticulated Sphærocarpus.

CRYPTOGAMIA Alga.

GEN. CHAR. *Cal.* ventricose, undivided. *Seeds* very numerous, collected into a globe.

SPEC. CHAR.

SYN. *Sphærocarpus terrestris, minima. Mich. Gen. 4.*

t. 3. Dill. Musc. 536. t. 78. f. 17.

Targionia sphærocarpus. Dickf. Fasc. 1. 8. With. Bot. Arr. V. 3. 157.

OBSERVED by the Rev. Mr. Bryant, Mr. Crowe, and Mr. Woodward, in clover, turnep, and other fields in Norfolk, covering the earth copiously in the moist winter months, particularly on strong land. A certain glaucous hue distinguishes it at first sight to those who have seen it once, though its minuteness and figure may have occasioned its remaining so long undiscovered, from its resemblance to a small *Bryum* without fructification. Even Dillenius never found this plant, but has taken it up on Micheli's authority.

The whole habit is very delicate and membranous, of a pale glaucous green. Fronds in clusters, nearly horizontal, attached to the ground by short radicles, oblong, waved, their disk covered with tufts of the fructification. Calyx of an inverted pear-shape, like a little bottle or vinegar cruet, erect, pellucid, of a finely reticulated structure; its orifice contracted and a little notched. Seeds forming a globe in the bottom of the calyx, clothed with a fine transparent skin, and, as Micheli observes, not intermixed with any fibres.

Mr. Dickson first made this plant known to the English botanist, and reduced it to the genus of *Targionia*. We are very loath to dissent from our great Cryptogamist, but on mature deliberation think it safest to retain Micheli's original genus, the essential character being so very clear, and the habit so totally distinct from the true *Targionia* (see our t. 287), which is of the same natural tribe as *Marchantia*; whereas *Sphærocarpus* is closely allied to *Blasia* in habit, and not far remote in generic character. As to the name, we retain it on the ground of originality, though writers on Fungi have applied it to some genus of their own, and Gmelin in his heedless compilations has called a plant in Monandria *Sphærocarpus*. It is best never to apply any old name (though laid aside) to a new genus; but the sound principles of nomenclature have of late been too much slighted.

SPHEROCARPUS terrestris.

Reproductive Sphaerocarpaceae.

CRYPTOGAMIA. Algae.

Gen. CHAR. Cal. ventricose, undivided. Spores very numerous, collected into a globe.

SPEC. CHAR.

872. *Sphaerocarpus terrestris* minimum. Algae Gen. 4.

N. 3. Coll. Algae 236. t. 78. f. 17.

Turgidus sphaerocarpus. Dicks. Nat. t. 8. Wulf.

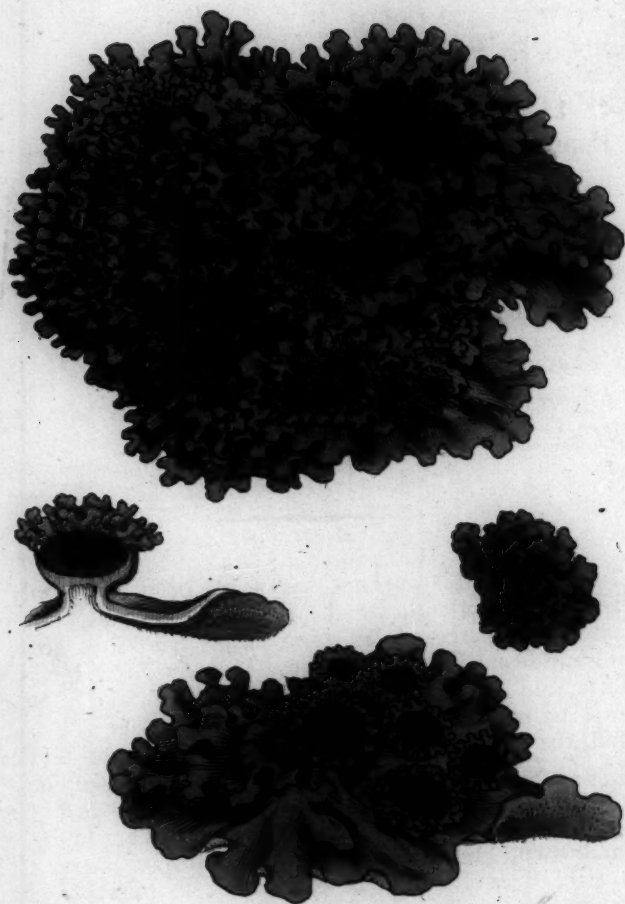
Nat. t. 1. f. 17.

RESERVED. The whole habit of the plant is very different from that of the other species of the genus, and it is not at all like the habit of the other species of the genus. The whole habit of the plant is very different from that of the other species of the genus, and it is not at all like the habit of the other species of the genus. The whole habit of the plant is very different from that of the other species of the genus, and it is not at all like the habit of the other species of the genus.

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LICHEN Burgeffii.

*Crowned Lichen.**CRYPTOGAMIA Alga.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, somewhat imbricated, curled.

Shields elevated, brown, slightly concave, with a green, leafy, curled and sinuated border.

SYN. Lichen Burgeffii. *Linn. Syst. Veg. ed. 13.* 807.*Lightf. Scot.* 827. *t.* 26. *Huds. Fl. An.* 538.*With. Bot. Arr. V.* 3. 189.

HITHERTO this curious *Lichen* has been found only in Dumfrieshire, Scotland, by the Rev. Dr. Burgeffs, but our specimens were gathered last summer on trunks of trees in the wild and beautiful country about the Devil's bridge, Cardiganshire, and at Hafod in that neighbourhood, by Dr. Smith. It grows, by no means copiously, in patches about as broad as the hand, the fronds being lobed, sinuated, curled and clustered together, so as to elevate one another into a thick cushion-like tuft; their substance is thin and pellucid, of a dull green, smooth above, finely downy beneath, when dry becoming of a purplish brown, and the under side whitish or hoary. The shields arise from the disk of the frond, in tolerable plenty when they are at all to be found, and the frond protruding with them makes them seem pedunculated, though they are really sessile; their disk is slightly concave, smooth, red brown, with a narrow, scarcely perceptible, border of its own substance and colour, and the whole enclosed in a luxuriant curled leafy elevated margin of the colour and texture of the frond.

Mr. Lightfoot describes the shields as, when wet, of the same colour with the leaves; whereas they are of a rather brighter brown in that state than when dry. Indeed his whole description is not made with all that attention which so new and singular an object deserved.

LICHEN Buprestis.

Common Lichen.

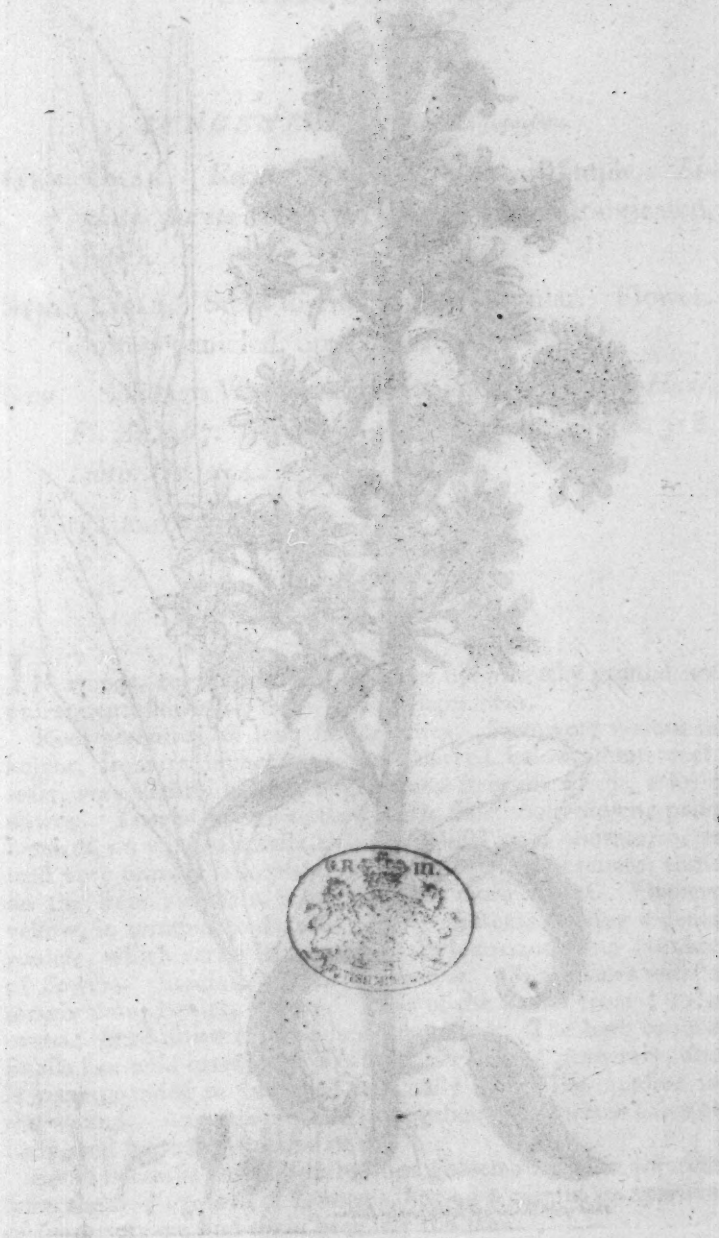
CRISTOCARPA

Gen. CHAR. This lichen is
Female, smooth, of a yellowish green
tint, and is found in the
Spec. CHAR. It is a
Single, smooth, yellowish green
green, and is found in the
Sex. Lichen, smooth, yellowish green
Lichen, smooth, yellowish green
Web. Bot. 1804, p. 238.

HITHERTO this common lichen has been found only in
the mountains of the Alps, by the Rev. Dr. Pallas, but our
specimens were gathered last summer on trunks of trees in
the wild and barren country about the city of Berlin. It
is a single, smooth, yellowish green, and is found in the
Spec. CHAR. It is a single, smooth, yellowish green
Single, smooth, yellowish green, and is found in the
Sex. Lichen, smooth, yellowish green
Lichen, smooth, yellowish green
Web. Bot. 1804, p. 238.

SOLIDAGO VIRGINICA

Common Golden Rod





Tab. 1796 Published by J. Hawley London.

SOLIDAGO Virgaurea.

Common Golden-rod.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Receptacle* naked. *Down* simple. *Ligulate florets* about 5. *Calyx-scales* imbricated, closed.

SPEC. CHAR. Stem slightly zigzag, angular. Flower-clusters panicled, upright, crowded.

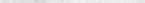
SYN. Solidago Virgaurea. *Linn. Sp. Pl.* 1235. *Hudf. Fl. An.* 367. *Witb. Bot. Arr.* 917. *Relb. Cant.* 318. *Sibth. Ox.* 254.

Virga aurea. *Raii Syn.* 176.

IN woods, copses, and among furze upon heathy ground not unfrequent, flowering from July to September.

Root perennial, of long simple fibres. Stem very various in height, from 10 inches to 3 feet, curved below, then erect, leafy, very slightly zigzag, angular and striated, rough, a little downy. Leaves harsh, clothed with short rigid down, paler beneath, on winged footstalks; the radical ones obovate, or at least very broadly lanceolate, serrated, or rather crenate; those on the stem alternate, narrower and more entire. Flowers yellow, in terminal and axillary erect clusters, forming a dense panicle, which varies extremely as to luxuriance and number of flowers. Bractææ lanceolate, downy. Calyx-scales with a membranous border, downy. Rays of the flower from 5 to 9 or 10. Seed-down rough when magnified. The herb bruised smells like wild carrot. It has been esteemed a vulnerary, and is recommended to be taken internally as well as applied to the wound. As a tonic it may strengthen the general habit of body, and by that means be of use.

Some botanists have suspected our golden-rod to be different from the *S. Virgaurea* of Linnæus, but on a careful comparison of specimens we find them precisely the same.



1950





Fig. 1996 *Gentiana* L. *Powers* L. *Don*

CAMPANULA latifolia.

Giant Bell-flower.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* bell-shaped, closed at the bottom by valves bearing the stamina. *Stigma* 3-cleft. *Capf.* inferior, opening by lateral pores.

SPEC. CHAR. Leaves ovato-lanceolate. Stem unbranched, round. Flowers solitary, pedunculated. Fruit drooping.

SYN. *Campanula latifolia.* *Linn. Sp. Pl.* 233. *Hudf. Fl. An.* 96. *With. Bot. Arr.* 218. *Relb. Cant. Suppl.* 2. 10. *Lightf. Scot.* 141.

C. maxima foliis latissimis. *Raii Syn.* 276.

IN the north of England, and in Scotland according to Mr. Lightfoot, this species of *Campanula* is not unfrequent, though rare in the southern counties. It grows in shady moist places, about the bases of mountains. Mr. Rose observed it in Forehoe wood near Kimberley, Norfolk. Our wild specimen grew near Dunstable, where it was first remarked and ascertained by our obliging correspondent the Rev. Mr. Abbot, for many botanists overlook this plant for *C. Trachelium*.

Root perennial, very milky as well as the whole herb. Stem 3 or 4 feet high, erect, simple, cylindrical or very slightly angular, leafy. Leaves alternate, nearly sessile, large, roughish, paler beneath, doubly serrated. From the bosoms of the upper ones arise solitary naked flower-stalks, scarcely ever bearing more than one flower; we have not found the pair of "leaf-scales," or rather bractæ mentioned in the *Bot. Arr.* Calyx smooth, serrated. Corolla large and handsome. The antheræ are not large, but afford plenty of pollen, which copiously adheres to the style.

This is sometimes cultivated in gardens. It flowers in August, and is rather ornamental; occasionally varying to white or pale rose-colour.

CAMPANULA latifolia.

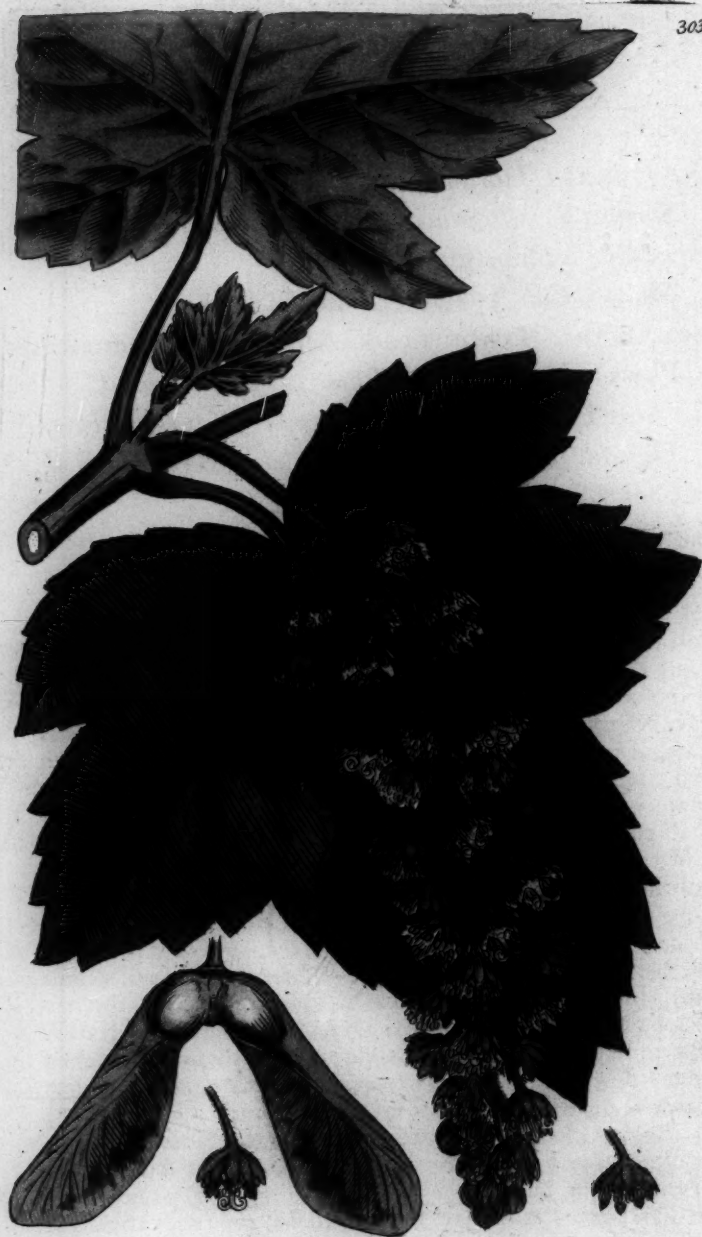
Great Bell-flower.

PENFARNSHAM, Devon.

GEN. CHAR. Cor. bell-shaped, closed at the bottom by valves bearing the stamens. Sepals 3-lobed. Caps. inferior, opening by lateral pores.
SPEC. CHAR. Leaves ovate-lanceolate. Stem unbranched, terete. Flowers solitary, pedunculated. First drooping.
SYN. Campanula latifolia. Lam. p. 17. 233. Hoffm. p. 10. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

In the north of England, and in Scotland according to Mr. Lightfoot, this species of Campanula is not uncommon, though rare in the southern counties. It grows in moist shady places about the holes of brown crabs, and is also collected in the borders of wood near Glasgow. The wild specimens grow near Dunblane, where it was first remarked and determined by our obliging countryman, the Rev. Mr. Forbes, for many botanical overlook this plant for C. Trachelium.
Root perennial, very silky as well as the whole herb. Stem 3 or 4 feet high, erect, slightly cylindrical or very slightly angular, leafy. Leaves alternate, in the middle large, roughish, paler beneath, doubly serrated; from the bottom of the upper ones arise solitary naked flower-stalks, scarcely ever bearing more than one flower; we have not found the plant at "Hill-top," or rather first, as mentioned in the bot. virt. Calyx smooth, serrated. Corolla large and handsome. The anthers are not large, but stand plainly on pedicels which copiously adhere to the style.
This is sometimes cultivated in gardens. It flowers in August, and is rather ornamental, occasionally varying to white or pale red colour.





Edw. 1796. *Rhus typhina* L. by J. Sowerby, London.

A C E R Pseudo-Platanus.

*Greater Maple, or Sycamore.**POLYGAMIA Monœcia.*

GEN. CHAR. Hermaphr. Cal. 5-cleft. Petals 5.
Stamina 8. Pistillum 1. Capsules 2 or 3, single-
seeded, terminating in a wing.

Male. Cal. 5-cleft. Pet. 5. Stam. 8.

SPEC. CHAR. Leaves five-lobed, unequally serrated.
Flowers in pendent clusters.

SYN. Acer Pseudo-Platanus. *Linn. Sp. Pl.* 1495. *Huds.*

Fl. An. 445. *With. Bot. Arr.* 1147. *Relb.*

Cant. 380. *Sibth. Ox.* 127.

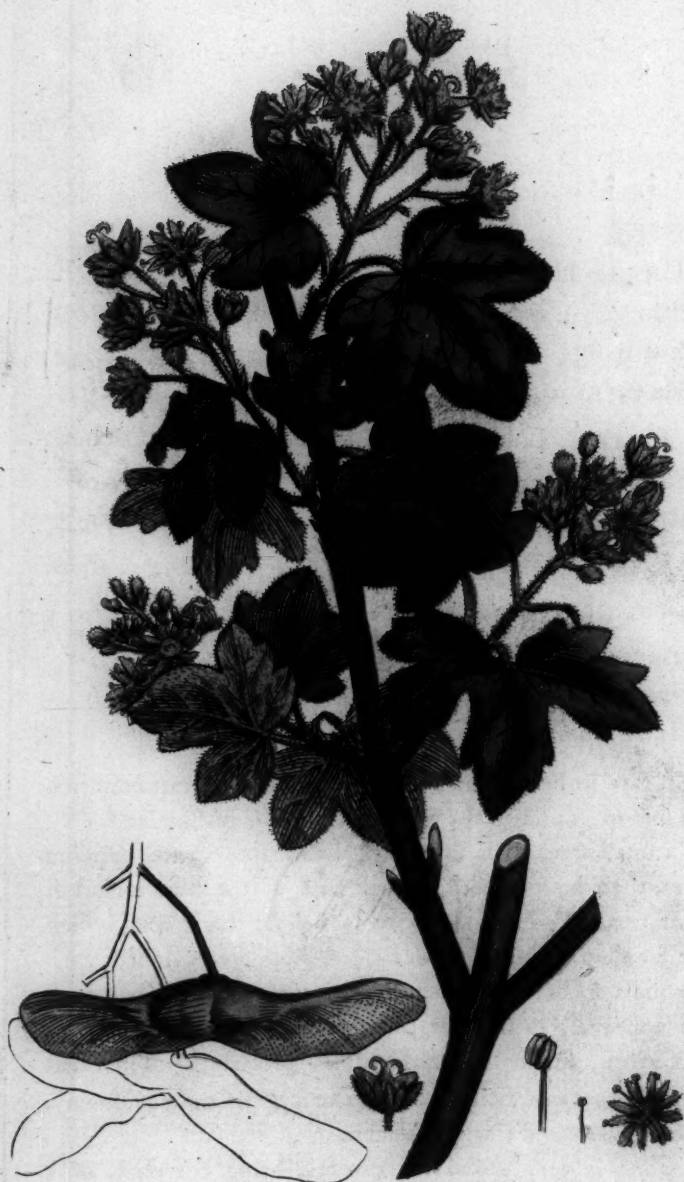
A. majus. Raii Syn. 470.

RAY thinks this tree, so common in hedges, &c. about houses, is not really a native of Britain. We have not observed it in any very wild places. It is said to prefer a maritime situation and exposure, but will grow even in a mountainous one. Being a large, very handsome, quick growing tree, and not injurious to grass, it was much planted about houses formerly, though Evelyn complains that the leaves fall early, putrefy, and "contaminate and mar our walks," so that he would "banish it from all curious gardens and avenues." The wood, as in all trees of rapid growth, is soft, chiefly used for ordinary utensils. Dr. Withering says sugar may be obtained from the sap, which is more remarkably the case with the *Acer saccharinum* of America.

The bark is smooth, ash-coloured. Branches round. Buds opposite, formed of numerous scales. Leaves 5-lobed, the terminal lobe largest, all veined strongly, and unequally serrated. Stipulæ none. Clusters solitary, axillary, long, drooping, branched and many-flowered. Flowers drooping. Petals green, very like the calyx-segments in size, form, and colour. Germen very hairy. Stigma cloven, revolute. Fruit pendent, smooth; seed-wings often 3, not much divaricated. It ripens in August, the flowers appearing in May.

We have great reason to suspect there are two varieties if not distinct species of this tree, in one of which the leaves are glaucous beneath and their serratures very distant; the filaments of this are hairy. Our intelligent friend Andrew Caldwell, Esq. of Dublin, first suggested the idea of this difference, and the Linnæan herbarium confirms his suspicion.





Bot. 1796 Published by J. G. Smith

A C E R campestre.

*Common Maple.**POLYGAMIA Monœcia.*

GEN. CHAR. Hermaphr. *Cal.* 5-cleft. *Pet.* 5. *Stam.* 8.
Pist. 1. *Caps.* 2 or 3, single-seeded, terminating
 in a wing.

Male. *Cal.* 5-cleft. *Pet.* 5. *Stam.* 8.

SPEC. CHAR. Lobes of the leaves obtuse, notched.
 Flowers in upright clusters.

SYN. *Acer campestre.* *Linn. Sp. Pl.* 1497. *Huds.*
Fl. An. 445. *With. Bot. Arr.* 1148. *Relb.*
Cant. 380. *Sibth. Ox.* 127.

A. minus. *Raii Syn.* 470.

NOT rare in hedges and thickets in the southern counties, though seldom found in the northern ones or in Scotland.

It is a small tree, with spreading divaricated round opposite branches, their bark smooth, though that of the stem is full of corky fissures. Footstalks downy as well as the leaves, which are smaller than in most of our trees, opposite, 5-lobed, each lobe having one or two notches. *Stipulæ* none. Clusters of flowers appearing in May or June, erect, terminal, branched. Flowers green, much like those of the preceding. Their antheræ (as in that) are hairy between the lobes. Capsules downy, extremely divaricated; wings smooth.

The wood is very useful for turners, being compact, of a fine grain, and often beautifully veined. The ancient Romans are said to have set an exorbitant value upon their tables of maple-wood, according to their size and the beauty of their veins. See Evelyn's *Sylva*.

RICHIE'S

Patented in England

TRADE MARK

Our Cases. Made of seasoned white pine, and are built
inside of iron plates, in which the tools are
housed.

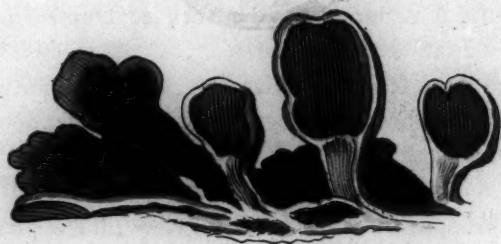
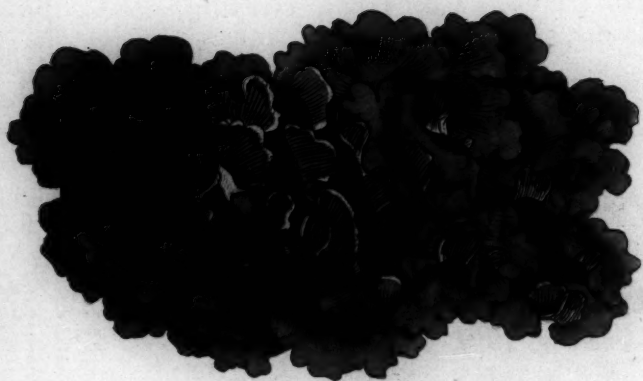
Size. Our Cases are made in two sizes, drawing
Shells, and are built in the same manner.



In some cases, the tools are made of steel, and are of
various sizes, and are built in the same manner.
The cases are made of seasoned white pine, and are
built inside of iron plates, in which the tools are
housed.



The tools are made of steel, and are of
various sizes, and are built in the same manner.
The cases are made of seasoned white pine, and are
built inside of iron plates, in which the tools are
housed.



Tab. 4^{ta}. 1796. Phil. Acad. Sci. London.

LICHEN *resupinatus*.*Reversed Lichen.*

CRYPTOGAMIA *Alga.*

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Coriaceous, creeping, lobed, brown. Shields marginal, on the under side of the frond.

SYN. *Lichen resupinatus*. *Linn. Sp. Pl.* 1615. *Huds. Fl. An.* 545. *Lichtf. Scot.* 843. *With. Bot. Arr.* V. 3. 205.

Lichenoides saxatile fuscum, peltis in averfa foliorum superficie locatis. *Raii Syn.* 77.

L. fuscum, peltis posticis ferrugineis. *Dill. Musc.* 206. t. 28. f. 105.

IN woods, clinging close to the mossy stems and roots of trees, and also on rocks, in the mountainous parts of Great Britain. Dillenius found it growing upon pebbles on the Sussex coast, and Dr. Smith on the rock of Dumbarton Castle, Scotland, in moist and shady parts.

The fronds are scarcely coriaceous, only its affinity with *L. caninus*, &c. justifies its being placed in that section. They are brown, smooth, somewhat imbricated, horizontal, obtusely lobed, their extremities dilated, bearing the shields on their under side completely concealed from view till the plant is dried up by any means, and then those shield-bearing lobes are reflexed. The disk of the shield is roundish, irregular in shape and various in size, concave, tawny or brick-coloured; they become darker in drying, though the colour of the frond is scarcely changed.

LICHEN teliphanus.

Russisch Lichen.

CRYPTOGAMIA.

Gen. CHAR. Male, branched warts. Female, smooth
shells or tubercles, in which the seeds are im-
bedded.

Spec. CHAR. Coralline, creeping, lobed, brown.
Shells arranged on the under side of the thong.

Syn. Lichen teliphanus, Linn. Sp. Pl. 1017. Vahl,
Lichen. 1791. L. 1017. L. 1017. L. 1017.

Lichen teliphanus, Linn. Sp. Pl. 1017. Vahl,
Lichen. 1791. L. 1017. L. 1017. L. 1017.

Lichen teliphanus, Linn. Sp. Pl. 1017. Vahl,
Lichen. 1791. L. 1017. L. 1017. L. 1017.

In woods, growing chief on the moss-ferns and roots of
trees, and on rocks in the mountainous parts of Great
Britain. It sometimes grows upon rocks on the Su-
low coast, and in the rock of the mountain of
Scotland, in north and west parts.
The first of these is the most common, and its affinity with L.
teliphanus is obvious from the following characters. They
are both of the same genus, and have the same charac-
ters, their coralline shells, bearing the seeds on the
under side completely covered with a brownish all the plain is dis-
colored by a brown, and that which is lobed bearing lobes
resembling. The disk of the shell is reniform, irregular in shape
and various in size, convex, rarely or thick-colored; they
become darker in drying, though the colour of the thong is
scarcely changed.

Color: Cream, white, cream, uncolored. (Color of one
eye: brown). Female. Color: uncolored.
Color of the scale: Cream, uncolored. (Color of
the wing: uncolored). (Color of the wing: uncolored).

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1870

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1990

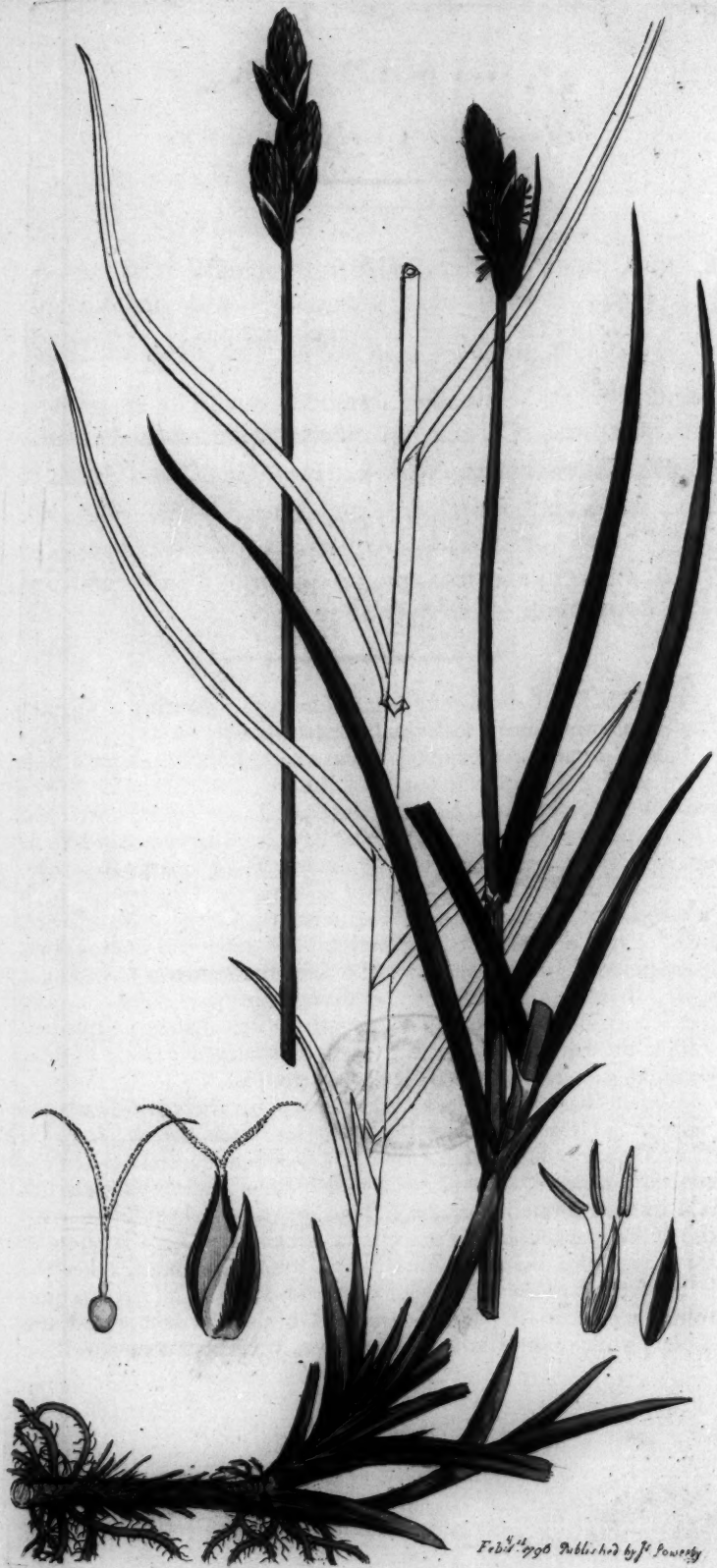
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A black and white micrograph showing a cross-section of a plant stem. The vascular bundles are arranged in a ring, and the central pith is visible. The image is labeled 'Fig. 1' in the bottom right corner.



POSTER NUMBER





CAREX ovalis.

Oval-spiked, or Naked Carex.

MONÆCIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Corolla* inflated, permanent. *Seed* triangular, invested with the corolla.

SPEC. CHAR. Spikelets about six, oval, close together, alternate. Scales lanceolate, equal to the capsule.

SYN. *Carex ovalis.* Gooden. *Tr. of Linn. Soc.* V. 2. 148.

C. leporina. Hudf. *Fl. An.* 404. With. *Bot. Arr.* 1029. Relb. *Cant. Suppl.* 1. 15. Sibth. *Ox.* 27.

Gramen cyperoides, spica e pluribus spicis mollibus composita. Raii *Syn.* 422.

GATHERED in Kensington Gardens, flowering in June. It is very common in wet marshy pastures.

Root perennial, creeping? Stem erect, hollow, about a foot high, with 3 sharp rough angles. Leaves sheathing the lower part of the stem, and rising about equal to it in height, dark green, narrow, roughish on the edges and nerve, but less so than in most other species. General spike terminal, erect, composed of 5 or 6 upright oval spikelets, the largest of which is terminal. Bractæ solitary, lanceolate, at the base of each spikelet, the lowermost longer than the rest, and ending in a leafy point. In each little spike a few of the lower flowers are male, the rest female. Scales ovato-lanceolate, acute, equal to the corolla. Filaments longer than the scales. Style tumid at the base. Stigmas but two. Permanent corolla slightly notched, convex on one side, margin rough.

We beg leave to correct an inaccuracy in the concluding paragraph of the description of *Carex Pseudo-Cyperus*, t. 242. We have expressed ourselves as if Dr. Goodenough had called the corolla a capsule, in opposition to Linnæus; whereas the truth is, Linnæus carelessly uses *nectarium* and *capsula* indifferently for the same part, and our excellent friend, to whose labours in this genus the British botanist is so much indebted, takes the latter term merely as the least exceptionable. The part in question however is totally distinct from the germen and fruit, merely enveloping the seed, and is really a permanent corolla.

CAREX ovata

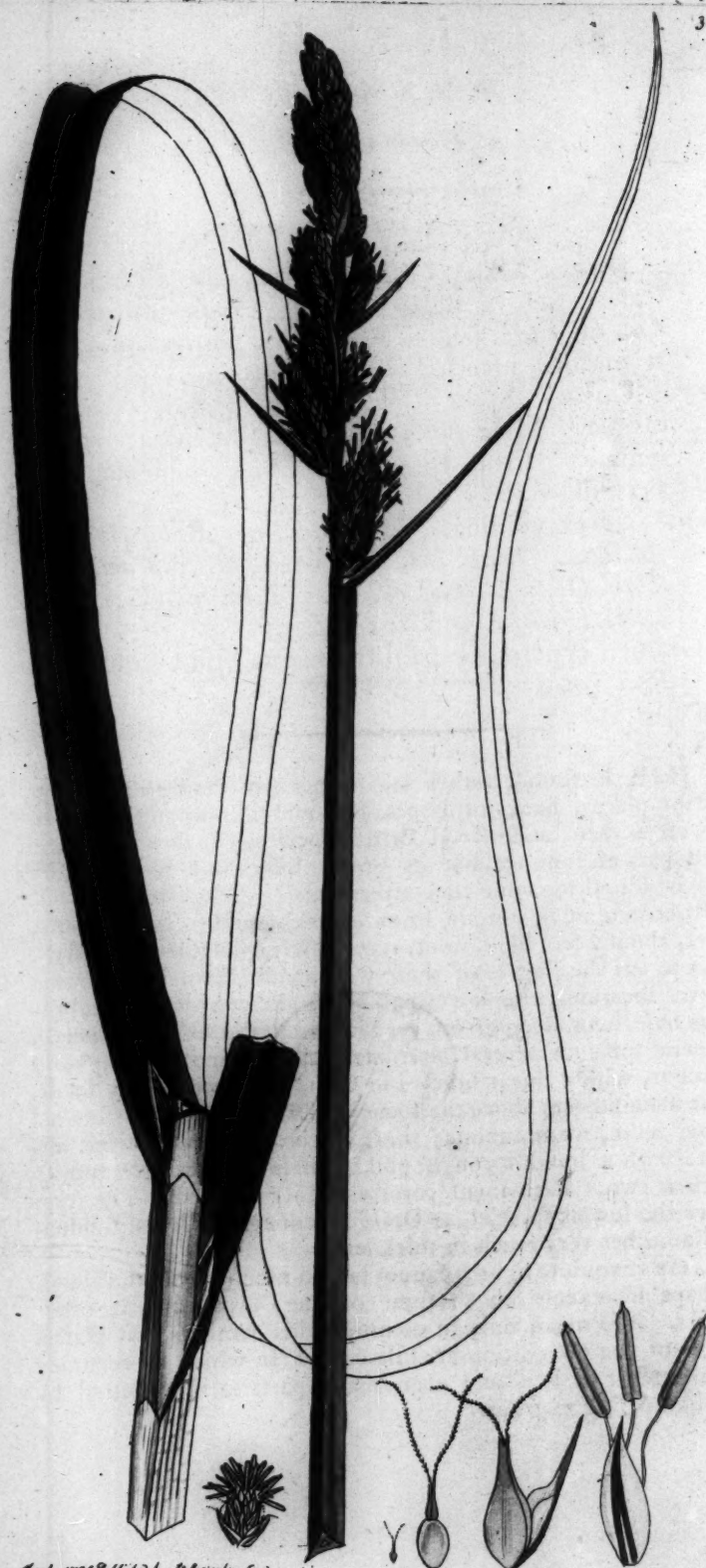
Oval-shaped, or Noddy Carex.

MONOCIA Fendleri

Gen. CHAR. Male, Cawn imbricated. Cal. of one
scale. Cawn none. Female, Cawn imbricated.
Cal. of one scale. Cawn imbricated, persistent.
Stam. triangular, jointed with the corolla.
Spec. CHAR. Spikes about six, oval, close together.
Scales lanceolate, equal to the capsule.
Stam. Carex ovata. Cawn. Fr. of June 20. N. 2. 188.
C. Fendleri. Fr. of June 20. N. 2. 188.
188. R. C. Cawn. Fr. of June 20. N. 2. 188.
German cyperoides, spicae spicae imbricatae
compositae. R. C. Cawn. Fr. of June 20. N. 2. 188.

GATHERED in Kensington Gardens, flowering in June.
It is very common in wet marshy pastures.
Root perennial, creeping; stem erect, hollow, about a foot
high, with 3 sharp rough nodes. Leaves sheathing the lower
part of the stem, and nearly equal to it in height, but less so
towards the base, rough on the edges and nerves, but less so
towards the base. General leafy terminal, erect,
composed of 4 or 5 equal, oval spikes, the base of which
is terminal. Spikes solitary, imbricated at the base of each
spike, the lower half longer than the rest, and ending in a
hook-point. In each spike a few of the lower flowers are
sterile, the rest fertile. The ovary lanceolate, acute, equal
to the corolla. Stamens longer than the scales. Style in-
serted at the base, and ending in a terminal corolla slightly
notched, convex on the back, and slightly rough.
The best form of the plant is the variety in the concluding pa-
graph of the description of Carex Fendleri, N. 2. 188.
We have only two specimens of the Goodenough had called the
Carex a variety, it is probably a distinct variety; whereas the truth
is, it is a distinct species, and is not a variety of the Goodenough
the same part and was certainly from the same source, but the
the form of the spike is a much thicker, thicker the
the form of the spike is a much thicker, thicker the
the form of the spike is a much thicker, thicker the





CAREX vulpina.

*Great Carex.**MONŒCIA Triandria.*

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale, *Cor.* inflated, permanent. *Seed* triangular, invested with the corolla.

SPEC. CHAR. Spike thrice compounded, compact, obtuse. Male flowers in each spikelet above the female. Fruit spreading. Angles of the stem very sharp.

SYN. *Carex vulpina.* *Linn. Sp. Pl.* 1382. *Huds. Fl. An.* 404. *With. Bot. Arr.* 1030. *Rehb. Cant.* 350. *Sibth. Ox.* 27. *Gooden. Tr. of Linn. Soc. V.* 2. 161. *Leers Herborn.* 196. t. 14. f. 5.

Gramen cyperoides palustre majus, spica compacta.

Raii Syn. 423.

THIS is found, rather less frequently than the last, in marshy places, banks of rivers, &c. and is one of the largest as well as best understood British species. It flowers in the early part of summer, but its brown spikes in a seeding state may be found for some time afterwards.

Root perennial, fibrous, forming thick tufts. Stems many, erect, about 2 feet high, stout, very acutely triangular and rough, so as to cut the fingers of those who handle them incautiously. Leaves sheathing the lower part with their whitish membranous base, long, deep green, very rough on the edges and nerve. General spike of several alternate, rather remote, compound spikelets, with a linear bractea to each. Little spikelets small, their male flowers above the female. Scales of the male flowers ovate, acute, membranous; those of the female somewhat abrupt, with a longish rough point. Base of the style tumid. Stigmas two. Permanent corolla slightly notched. The stem above the lowest spikelet, as Dr. Goodenough observes, suddenly diminishes very much in thickness.

Leers's exquisite figures cannot be too much admired, though perhaps he excels less in some of the *Carices* than in other grasses. We mean only to commend his own original plates. Those of the 2d edition are vile copies, in which all accuracy of character is lost, and even many parts totally omitted by the blundering engraver.





March 1796 Published by J. P. R. London.

ADONIS autumnalis.

Corn Adonis, or Pheasant's-eye.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5 or more, without a nectary. *Seeds* naked.

SPEC. CHAR. *Petals* about eight, obcordate, concave. *Fruit* ovate.

SYN. *Adonis autumnalis.* *Linn. Sp. Pl.* 771. *Huds. Fl. An.* 239. *With. Bot. Arr.* 570. *Sibth. Ox.* 171. *Curt. Lond. Fasc.* 3. t. 37.

Flos Adonis. *Raii Syn.* 251.

FOR a wild specimen of this elegant plant we are obliged to Miss Lysons, who gathered it in Gloucestershire in October last. It grows, though rarely, in corn-fields. Mrs. Plettow, of Watlington, in Norfolk, observed it near Denver sluice in that county.

Root small, annual. Stem much branched, upright, leafy, round, striated. Leaves alternate, thrice compound, the segments linear, alternate, acute. Flowers solitary, terminating the branches, inodorous, of a beautiful polished crimson, each petal marked with deep purple at the base, and the stamina, antheræ and styles being of the same dark colour, give a great brightness to the red part. Calyx pale green, somewhat membranous, soon falling off. Petals about 8, rarely more, often fewer, for Linnæus in a manuscript note in his own *Species Plantarum* confesses he took the character there from a luxuriant flower. This species is however distinct enough from the pale-scarlet *A. æstivalis* of the south of Europe, with which Haller in his description, No. 1158, seems to confound it, as Linnæus formerly did. In that the petals are obovate and narrow, the fruit long and cylindrical; in ours the petals are inversely heart-shaped, concave, the fruit rather ovate, and not half so long. It is certainly an error in Linnæus to call the fruit of *A. æstivalis* ovate, and this subcylindrical. The contrary is rather the case; at least the former is truly cylindrical, and very long and slender compared with ours.

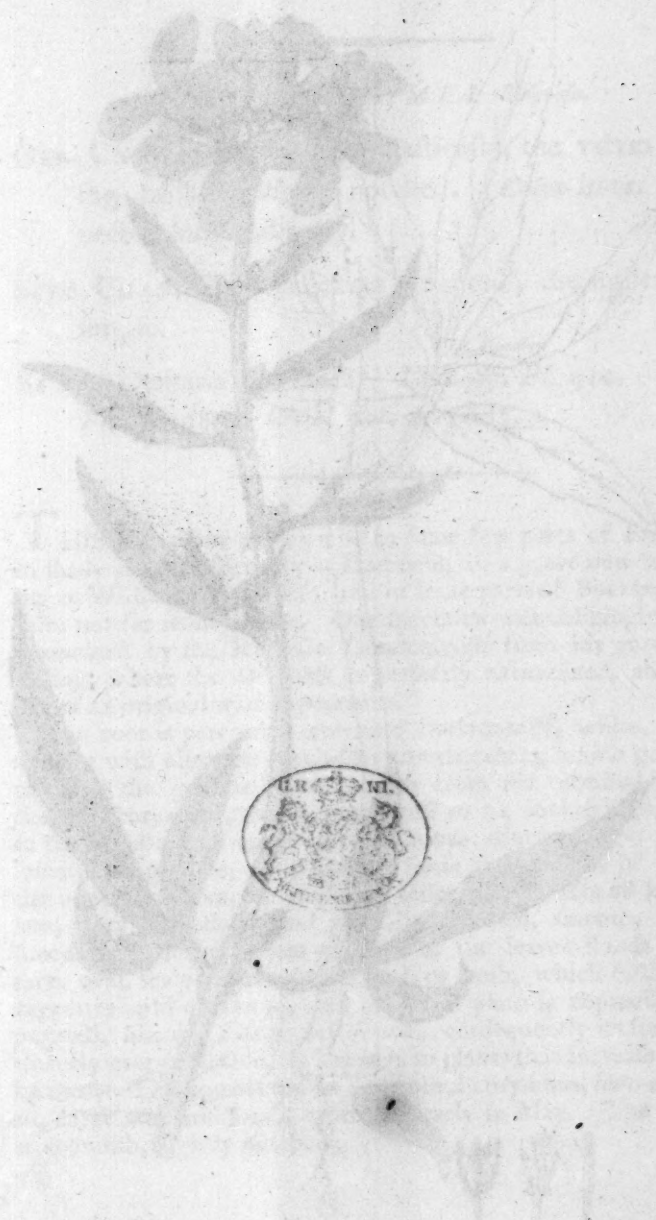
ADONIS

Corn Adonis, or Pheasant's Eye.

FOLEY, D. A. Polymers.

(34)
DENTARIA - *dentaria*.

Dentaria officinalis.





March 1796 Published by J. Bowyer London.

DENTARIA bulbifera.

*Bulbiferous Coral-wort.**TETRADYNAMIA Siliquosa.*

GEN. CHAR. *Pod* bursting elastically, the valves rolling back. *Stigma* notched. *Calyx-leaves* connected longitudinally.

SPEC. CHAR. Lower leaves pinnated; the uppermost simple.

SYN. *Dentaria bulbifera.* Linn. *Sp. Pl.* 912. *Huds. Fl. An.* 285. *Wieb. Bot. Arr.* 683.

THIS rare plant grows wild in some few parts of England, in shady places, especially at Harefield, in a grove now belonging to William Baynes Esq. and in some parts of Buckinghamshire not far from thence. Our specimen was obligingly communicated by the Rev. Dr. Goodenough from his garden at Ealing, where the *Dentaria* is perfectly naturalized, and preserves its original wild appearance.

The root is perennial, creeping horizontally, white, fleshy, and set with alternate tooth-like protuberances, which gave occasion to the generic name. Stem from the terminal bud of the last year, erect, round, simple, 18 to 24 inches high, leafy in the middle and upper part. Leaves alternate; the 2 or 3 lowermost pinnate, of 5 leaflets, some above them of 3, and the upper ones simple, gradually lessening; leaflets all lanceolate, very irregularly and partially serrated, smooth, rather succulent. In the bosom of most of the leaves stands a solitary, oval, scaly, dark purple bud or bulb, which falling off vegetates in the ground, and thus the plant is copiously propagated, like the *Lilium bulbiferum*; consequently its seeds are scarcely ever perfected, as happens to plants that increase much by root. The flowers are in a terminal corymbus, lilac-coloured, large and handsome, appearing early in May. The stigma is roundish, slightly notched.

DENTARIA bulbifera.

Bullifera Can. root.

TRITICUM A. 28 p. 14

Can. Char. Not coming naturally the valves roll-
ing back. Slight notched. Can. root con-
nected longitudinally.
Spec. Char. Lower leaves flattened; the uppermost
simple.
Syr. Dentaria bulbifera. Linn. 29. Pl. 912. 1847.
Pl. 1848. 1849. 1850. 1851.

THIS rare plant grows wild in some few parts of England, in shady places, especially at Haverfield, in a grove now belong-
ing to William Lloyd Esq. and in some parts of Buckingham-
shire not far from London. Our specimen was obviously com-
municated by the Rev. Dr. Goodenough from his garden at
Hilling, where the Dentaria is perfectly naturalized, and pre-
serves its original wild appearance.
The root is perennial, creeping horizontally, white, fleshy,
and set with alternate tooth-like protuberances, which have oc-
casioned the generic name. Scam from the terminal bud of
the last year, erect, round, simple, 18 to 24 inches high, leafy
in the middle and upper part. Leaves alternate; the 2 or 3
lowermost opposite, of 2 leaflets, toothed above, of 2 and
the upper ones simple, gradually lengthening, all lanceo-
late, very irregularly and pinnately serrated, smooth, rather
flescent. In the bottom of most of the leaves stands a little
turf, oval, leafy, dark purple bud or bulb, which falling off
vegetates in the ground, and thus the plant is copiously pro-
pagated, like the *Adiantum* species. Consequently its seeds are
scarcely ever perceived, as happens to plants that increase in this
manner. The flowers are in a terminal corymbose, lilac-colour-
ed, large and handsome, appearing early in May. The stigma
is somewhat slightly notched.





Psychotria puberula L. f. *Psychotria* London.

CORNUS Suecica.

*Dwarf Cornel.**TETRANDRIA Monogynia.*

GEN. CHAR. *Cal.* of 4 teeth. *Petals* 4. *Drupa* inferior. *Nut* of 2 cells.

SPEC. CHAR. Herbaceous, Flower between two branches.

SYN. *Cornus Suecica*. *Linn. Sp. Pl.* 171. *Willd. Bot. Arr.* 161.

C. herbacea. *Huds. Fl. An.* 71.

Chamæpericlymenum. *Raii Syn.* 261.

MR. William Travis of Scarborough gathered the specimen here figured on the side of a valley in that neighbourhood, called the *Hole of Horcum*, where this alpine plant grows abundantly, as well as about the Cheviot hills, Northumberland, and in the Highlands of Scotland, flowering in June and July. It is nearly allied to a favourite American plant, *C. canadensis*, but does not thrive so well in a garden.

Root perennial, creeping, long and slender. Stems perfectly herbaceous, erect, rising to the height of 3 or 4 inches, square, leafy. Leaves opposite, sessile, ovate, entire, strongly ribbed, without stipulæ. Flowers in a little terminal pedunculated umbel, with a large involucre of 4 ovate unequal white leaves, often bordered with red, and turning green as the fruit ripens. Each flower stands on a short partial stalk, and is in every part, except the stamina, of an exceedingly deep purple, almost black. Stamina and antheræ whitish. The umbel might easily be taken, by a casual observer, for one simple flower with 4 white petals, and we are afraid Ray understood it so, having perhaps not seen it alive. The fruit is round, red, sweetish. On each side the stalk that supports the umbel arises the rudiment of a branch, which overtops the fruit before it arrives at maturity. The presence of these branches distinguishes this species from *Cornus canadensis*.

CORNUS SUECICA.

Dwarf Cornus.

TERRESTRIS Montagna.

Gen. Char. Cal. of 4 teeth. Petals 4. Drupe in-
ferior, 2 or 3 cells.

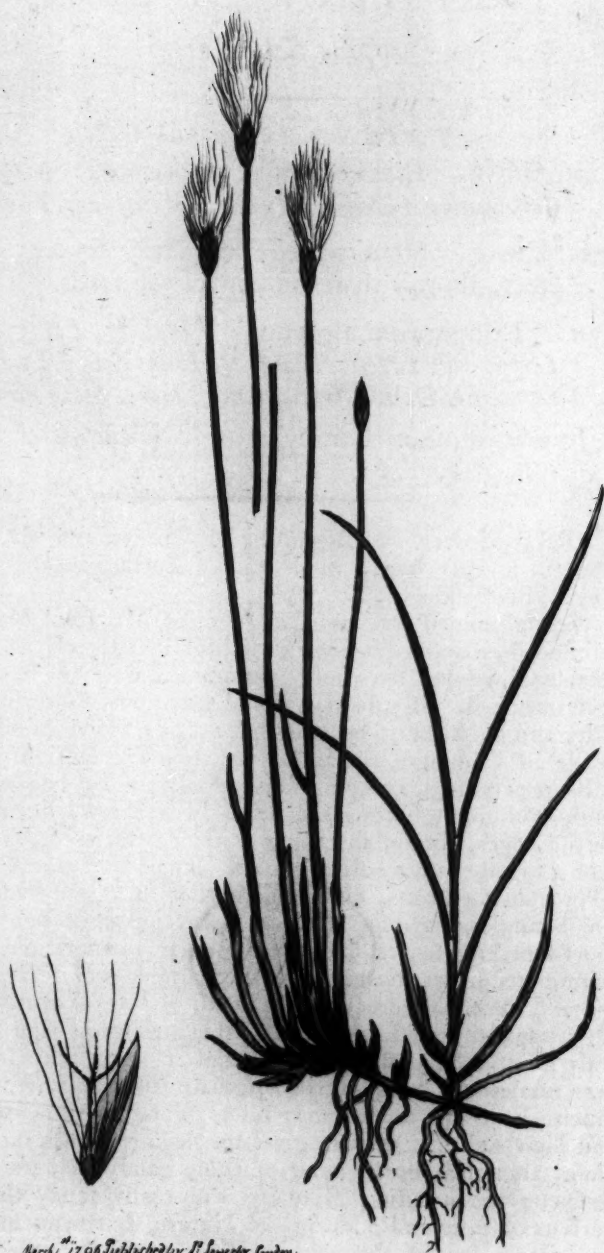
Spec. Char. Fruticose. Flower between two
branches.

Sim. Cornus suecica, Linn. Sp. Pl. 1141. Hb. Bor.
Art. 151.

C. borealis, Vahl. Cat. Bor.
Chamaenerion, Linn. Sp. Pl. 1141.

MR. WILLIAM TAYLOR of St. Andrews, writes: The specimen
here figured on the side of a branch in the neighbourhood
called the *lila* of the sea, where this shrubby plant grows abund-
antly, as well as about the cliffs of the *lila* of the sea, and in the
highlands of Scotland, growing in June and July.
It is nearly allied to a *lila* of the sea, which is common in the
but does not thrive so well in a garden.
Root perennial, creeping, leafy and leafless. Stems per-
petually erect, rising to the height of 2 or 3 inches
petiole, leafy. Leaves opposite, ovate, entire, strongly
ribbed, without nerves. Petals 4. A little terminal pedun-
culated umbel with a large involucrum of 4 ovate unguis-
white leaves, often bordered with red, and turning green as the
fruit ripens. Each flower hangs on a short pedicel, and is
in every part except the filament of an exceedingly deep pur-
ple, almost black. Stamens and anthers whitish. The anthers
might easily be taken for a calyx, and we are afraid they are
often with a white petal, and we are afraid they are
it is having perhaps not been seen. The fruit is round, and
twisted. On each side the fruit has a long pedicel, which
the rudiment of a branch, which overtops the fruit before it
arrives at maturity. The pedicel of the fruit is often
greater than the fruit from which it is taken.





Nardi 1796 Published by J. B. Swetley London.

ERIOPHORUM alpinum.

*Alpine Cotton-grass.**TRIANDRIA Monogynia.*

GEN. CHAR. *Glumes* chaffy, imbricated on all sides.
Cor. none. *Seed* 1, invested with very long hairs.

SPEC. CHAR. Stem naked, angular. Spike solitary,
 erect, shorter than the hair of the seeds.

SYN. *Eriophorum alpinum.* *Linn. Sp. Pl.* 77. *Flo.*
Lapp. Ed. 2. 20. *Transf. of Linn. Soc. V.* 2. 290 &
 356. *Fl. Dan. t.* 620. *Dicks. Hort. Sicc. Fasc.* 8. 3.

Juncus alpinus bombycinus. *Scheuchz. Prod.* 27.
t. 8. *f.* 1.

FIRST discovered in Britain by Mr. Brown and Mr. George Don, in a turfy bog 3 miles east of Forfar, in the shire of Angus, Scotland.

We are obliged for wild specimens to Mr. John Mackay of Edinburgh, a most diligent and skilful investigator of the vegetable kingdom, by whose communications we have often been enriched. It grows in alpine situations, flowering about July, and has hitherto been announced as a native of our island, in the 2d volume of the Linn. Society's Transactions only.

Root perennial, creeping horizontally among bog-earth and sand, with many fibrous radicles. Leaves few, linear, rough on the edges, obtuse, sheathing at their base, erect, sometimes 3 or 4 together on a barren branch. Stems several, erect, much taller than the leaves, close together, with 3 and sometimes 4 rough angles, striated, their base enveloped in one or more short sheathing leaves, and a few tubular, membranous, bluntly acuminate scales, seeming like the rudiments of leaves. Spike solitary, terminal, erect, oval, small, of several ovate, yellowish brown, sharply keeled scales, the lowermost tipped with a leafy point. Seed sharply triangular, clothed with long, not very numerous, hairs, which originate from its base, and rise much above the top of the style. Their extreme whiteness and their delicate texture give an elegant appearance to the plant; though it boasts none of those gaudy colours requisite to excite the attention of many, who really fancy themselves persons of taste and admirers of Nature, but who are as inadequate judges of their own talents, as of the universal elegance and wisdom of the creation around them.

ERIOPHORUM alpinum

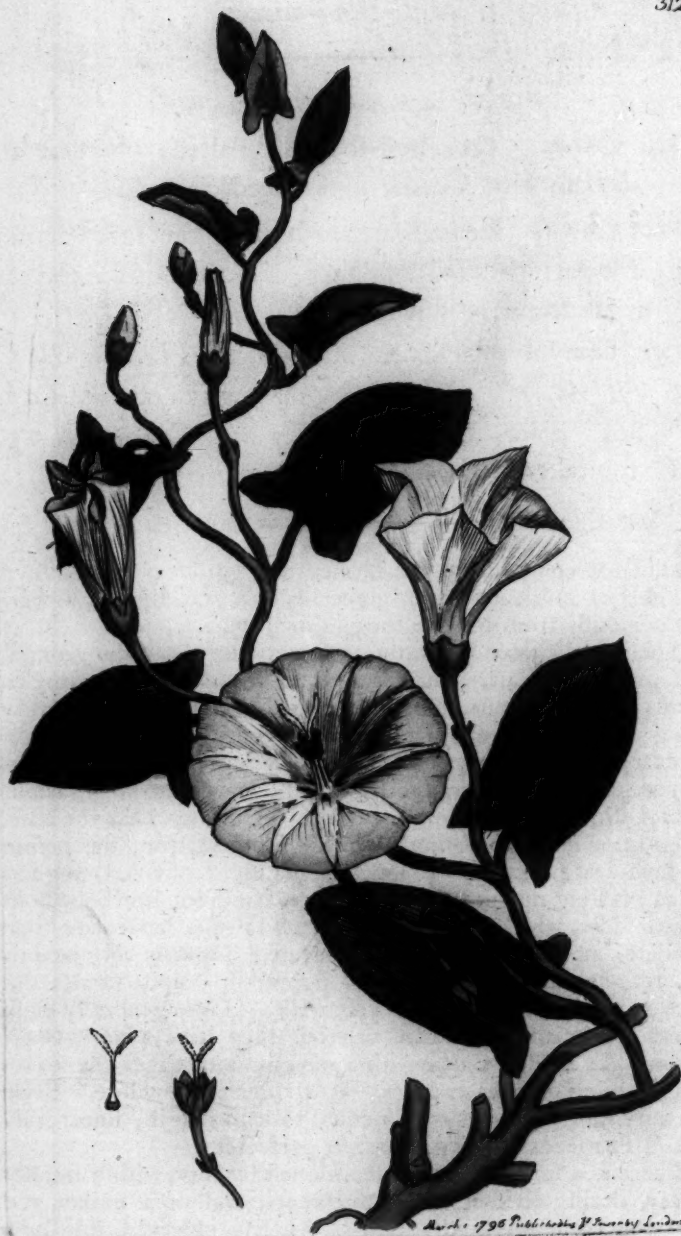
Alpine Cotton-grass.

FRANKLIN, Newburgh.

Gen. Char. Culm. chaff, imbricated on all sides.
 Cor. none. Seed, 1, revolved with very long hairs.
 Spec. Char. Stem naked, without spike below.
 erect, shorter than the rest of the leaf.
 Syn. Eriophorum alpinum. Linn. Sp. Pl. 77. V. 1.
 Lapp. Ed. 2. 10. Yrind. Linn. Sp. Pl. 2. 200. 2.
 350. Fl. Dan. 4. 62. Dact. Herb. Græc. Fels. 8. 3.
 Juncus alpinus bombycinus. Schreb. Pres. 27.

FIRST discovered in Britain by Mr. Brown and Mr. George
 Hook in a turf bog 2 miles east of Lorton in the firth of
 Angus, Scotland.
 We are obliged for this specimen to Mr. John Mackay of
 Edinburgh, a most diligent and diligent investigator of the ve-
 getable kingdom, by whose communications we have often
 been enriched. It grows in a low situation, flowering about
 July, and has hitherto been considered as a native of our island.
 In the 2d volume of the Linn. Society's Transactions only.
 Root perennial, creeping, but hardly among bog-cush and
 find, with many fibrous radicles. Leaves few, linear, rough
 on the edges, obtuse, sheathing at their base, erect, sometimes
 1 or 2 together on a barren branch. Stem laxly erect, much
 taller than the leaves, close together, with 2 and sometimes 4
 rough angles, striated, their base enclosed in one or more
 short bristly leaves, and a few smaller, membranous, plainly
 acuminate leaflets, forming the bottom of the leaves. Spike
 solitary, terminal, erect, small, of several white, yellow-
 ish brown, slender, linear, the lowermost ligged with a
 silky point. Bracts linear, slender, with long, not
 very numerous, hairs which descend from the base, and rise
 much above the top of the style. There is some whiteness
 and their delicate texture give in degree of resistance to the
 plant, though it boasts none of those gray cottony repulsive
 to excite the attention of many, who really fancy themselves
 persons of taste and admirers of nature, but who are in-
 capable judges of their own talents as to the universal elo-
 quence and wisdom of the creation around them.





CONVOLVULUS arvensis.

*Small Bind-weed.**PENTANDRIA Monogynia.*

GEN. CHAR. Cor. bell-shaped, plaited. Stigmas 2.
Capsule with 2 cells, and 2 seeds in each.

SPEC. CHAR. Leaves arrow-shaped, the lobes acute.
Flowers generally solitary. Bractææ minute, remote from the flower.

SYN. Convolvulus arvensis. Linn. Sp. Pl. 218. Hudf.
Fl. An. 88. Wiltb. Bot. Arr. 212. Relb. Cant.
86. Sibth. Ox. 76. Curt. Lond. Fasc. 2. t. 13.
C. minor vulgaris. Rati Syn. 275.

BUT too common for the farmer and gardener in fields and all kinds of cultivated land, especially in a gravelly soil, flowering copiously from May to the end of July.

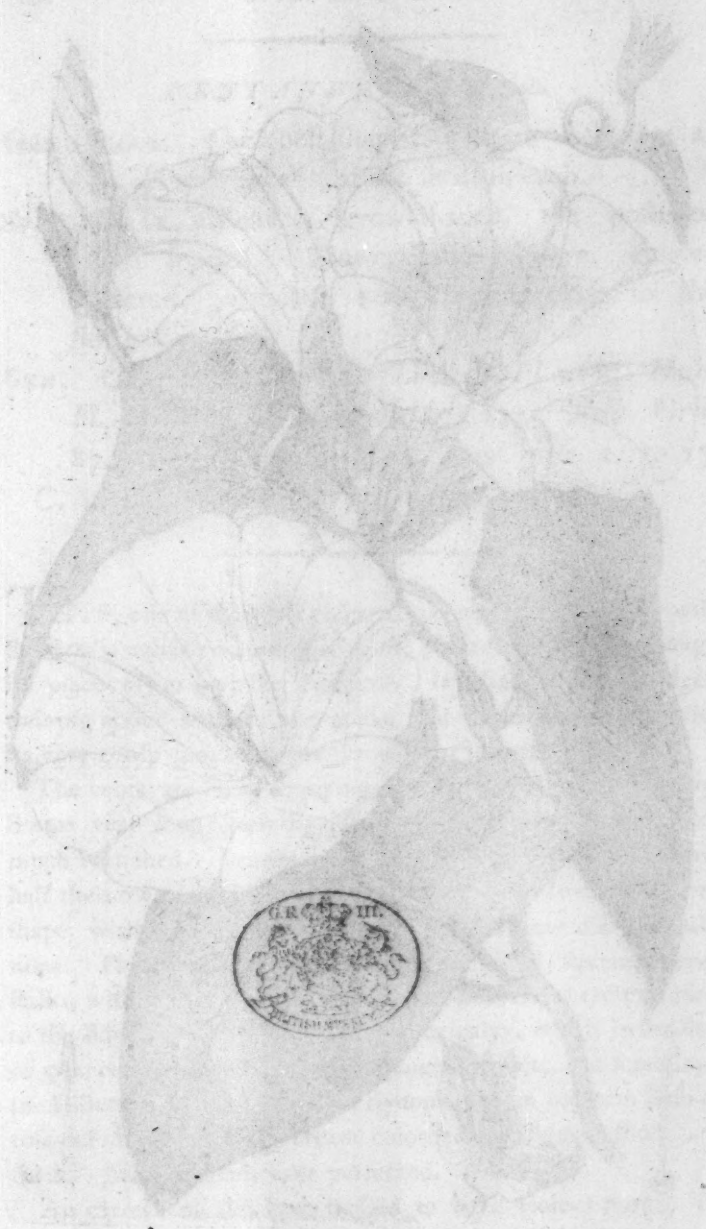
The root is perennial, running so very deep into the ground, and growing so fast, that it is next to impossible to destroy it. Stems very numerous, long, climbing and twining round every thing in their way, angular, slightly downy, not much branched except at the very bottom, clothed with alternate arrow-shaped leaves on downy footstalks; the leaves are very various in breadth, entire, except one tooth sometimes near the base, and a little downy. Stipulæ none. Flowers from the bosom of each leaf, solitary, on long (generally undivided) angular stalks swelling upwards, with a pair of minute bractææ about their middle, which are downy, narrow, rather lanceolate than subulate, and sometimes even obovate. Flowers very beautiful, rose-coloured, varying with lighter or deeper shades and lines of crimson, the plaits yellowish. They generally close before rain; in dry warm weather they have a very sweet almond-like smell. Calyx with a membranous edge, the leaves obtuse, lying over each other. Antheræ red or white. Style not very long; stigmas nearly equal to it in length, linear, distant. The seeds happily are rarely perfected.

There is a singular variety mentioned by Ray, with a smaller flower, deeply divided into 5 segments, and of a darker red than the common kind. Dr. Smith has observed this in a hedge out of St. Giles's gates, Norwich.

1813

CONVOLVULUS

Opuntia





April 1. 1796 Published by J. Pouterby London

CONVOLVULUS sepium.

*Great Bind-weed.**PENTANDRIA Monogynia.*GEN. CHAR. *Cor.* bell-shaped, plaited. *Stigmas* 2.*Capsule* with 2 cells, and 2 seeds in each.

SPEC. CHAR. Leaves arrow-shaped, the posterior lobes lopped. Flower-stalks square, single-flowered. Bractææ heart-shaped, close to the flower.

SYN. *Convolvulus sepium.* *Linn. Sp. Pl.* 218. *Huds.**Fl. An.* 88. *With. Bot. Arr.* 213. *Relb. Cant.*87. *Sibth. Ox.* 76. *Curt. Lond. fasc.* 1. t. 13.*C. major.* *Raii Syn.* 275.

THIS, one of the most elegant and graceful of all our wild flowers, is equally common with the preceding species, though its place of growth be different. It inhabits moist hedges, twining about willows and reeds, and decorating them with its very conspicuous flowers throughout July and August.

The roots are long, creeping, and perennial, a little fleshy. Stems very long, twining, somewhat angular, smooth, not much branched. Leaves alternate, on smooth footstalks about half their own length, dependent, smooth, of a swelling arrow-shape, with the angles at the base abruptly cut off. Stipulæ none. Flowers solitary, on axillary, undivided, square, curved stalks, with a pair of heartshaped, red-bordered bractææ, close to the flower and enfolding the proper calyx, which is smaller, of 5 lanceolate leaves. Corolla generally white, but sometimes (as Dillenius observes in Ray's Synopsis) of an uniform flesh or rose-colour. Antheræ cream-coloured. Stigmas short and thick. Seeds scarcely ever perfected.

An extract of the herb is said to be a violent purge, like Scammony.

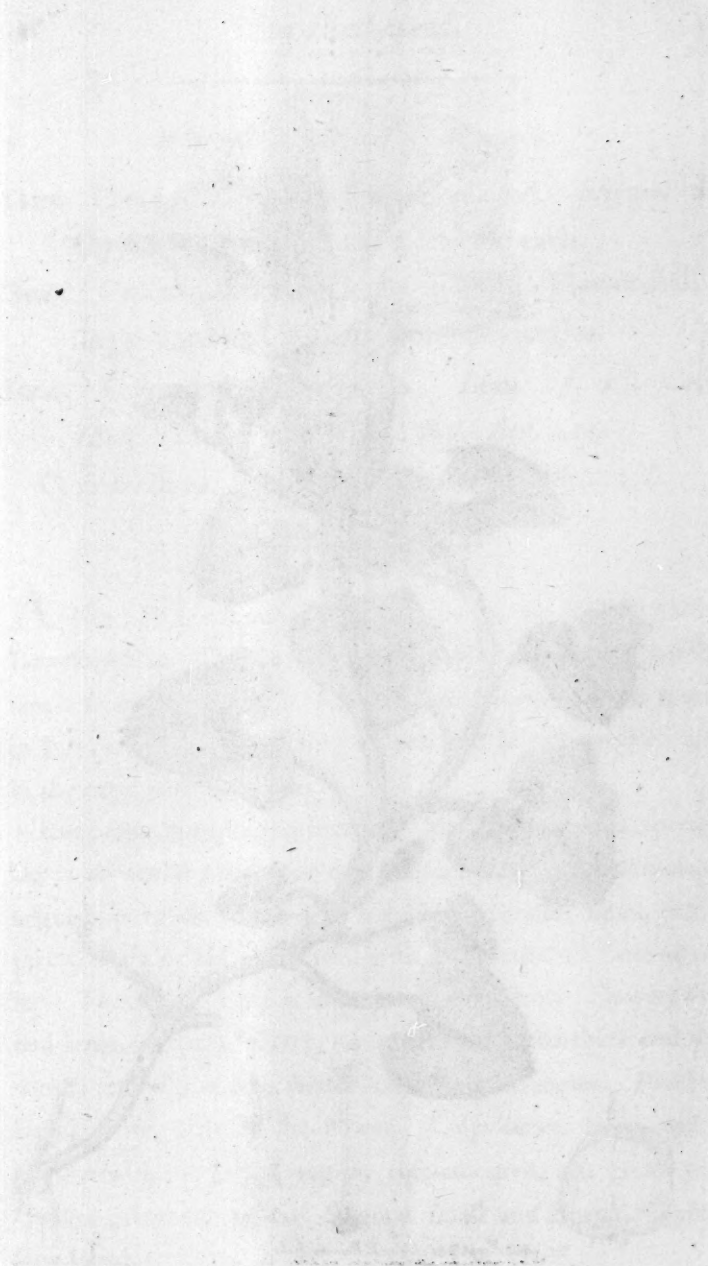
CONVOLVULUS sepium.

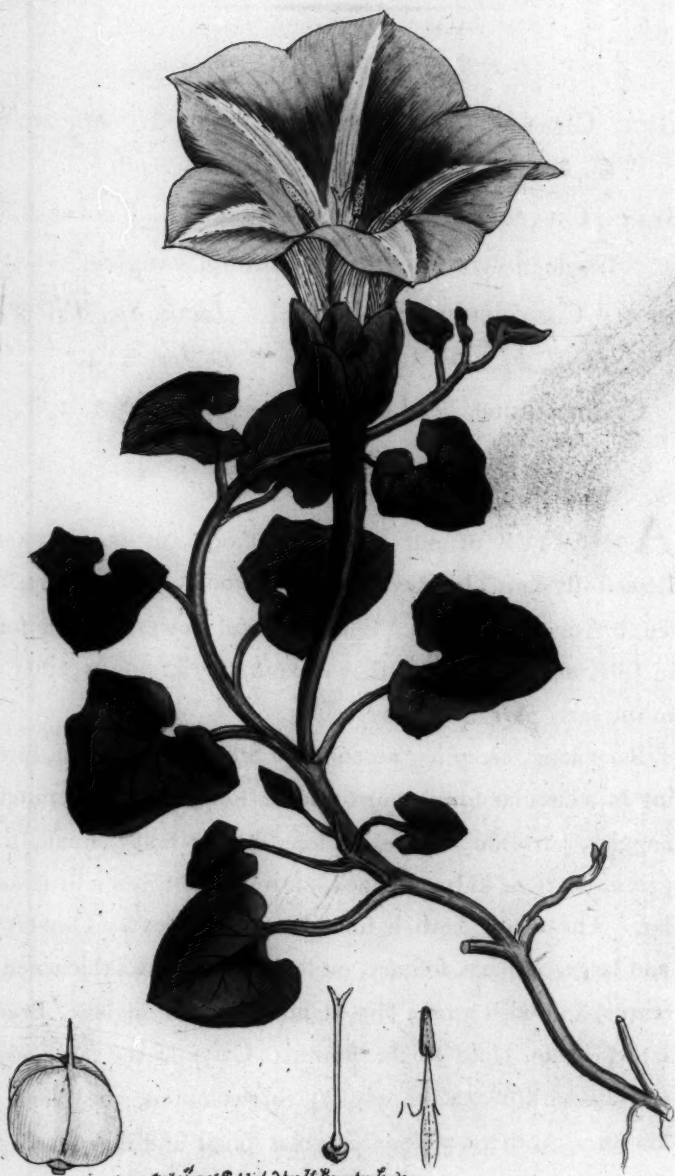
Great Bind-weed.

PERITANDERIS

Gen. CHAR. Cor. bell-shaped, plaited. Sepals 2.
 (Sepals with a tube, and a narrow cleft.)
 SPEC. CHAR. Leaves narrow-linear, the posterior
 1/2 toped. Lower stalks linear, single-
 branched. Bracts heart-shaped, close to the
 flower.
 ST. CONVULVULUS. Linn. Sp. Pl. 418. Willd.
 R. 418. 25. 1800. L. 1800. 219. Rich. C. 180.
 87. 25. 1800. 219. L. 1800. 219. 180.
 C. major. L. 1800. 219.

It is one of the most elegant and graceful of our wild
 flowers, is equally common with the present in the south, though
 in places of growth so different. It is a native of the south of
 France, about which, and in the south of France, and in the south of
 the very commonest flowers in the south of France, and in the south of
 France. The roots are long, creeping, and branched, a little fleshy.
 Stems very long, twining, branched, sometimes, but not
 much branched. Leaves alternate, linear, lanceolate, about
 half their own length, sometimes, in some of a linear arrow-
 shape with the angles of the base slightly cut off. Sepals
 none. Flowers solitary, or in small, unbranched racemes, rarely
 stalks, with a pair of heart-shaped, red-brown bracts, close
 to the flower, enclosing the proper calyx, which is smaller,
 of 5 lanceolate leaves. Corolla generally white, but sometimes
 (as Dillenius observes in Ray's Synops.) of an ashy or flesh
 red colour. Anthers cream-coloured. Stigmas short and
 thick. Seeds scarcely ever perished.
 An extract of the herb is said to be a violent purge, like
 scammony.





April 1796 Published by J. Kewerby London.

CONVOLVULUS Soldanella.

*Sea Bind-weed.**PENTANDRIA Monogynia.*GEN. CHAR. *Cor.* bell-shaped, plaited. *Stigmas* 2.*Capsule* with 2 cells, and 2 seeds in each.

SPEC. CHAR. Leaves kidney-shaped. Flower-stalks single-flowered, with membranous angles.

SYN. *Convolvulus Soldanella.* *Linn. Sp. Pl.* 226.*Huds. Fl. An.* 89. *With. Bot. Arr.* 214.*C. maritimus, Soldanella dictus.* *Raii Syn.* 276.

A NATIVE of our sandy sea shores, as at Yarmouth, Lowestoft, &c. The Rev. Mr. Baker and A. B. Lambert, Esq. sent it from Weymouth. The beautiful flowers may be found in July, not much later; they expand only in fine weather and in the early part of the day.

Root long, creeping, perennial. Stems procumbent, spreading in a circular form, 5 or 6 inches long, but little branched, angular, purplish. Leaves on longish foot-stalks, small, dark-green, heart or kidney-shaped, entire, sometimes a little angular. The whole herb is smooth and succulent. Flowers few and large, axillary, solitary, on long flower-stalks thickened upwards, and with 3 or 4 dilated membranous angles. Bractææ large, ovate, close to the flower. Calyx-leaves large, ovate. Corolla with five acute angles, rose-coloured, the plaits yellowish. Antheræ yellow. Stigmas small and sharp. Capsule four-lobed.

CONVOLVULUS Soldanella.

See Black-veined.

PENTANDRIA Monogamia.

- GEN. CHAR. Cor. bell-shaped, divided. Stigma 2.
 Capsule with 2 cells and 2 seeds in each.
 SPEC. CHAR. Leaves kidney-shaped. Flower-stalks
 single-flowered, with membranous angles.
 STR. Convolvulus Soldanella. Linn. Sp. Pl. 230.
 Hoff. Pl. rar. 89. Willd. Bot. Ber. 214.
 C. maritimus, Soldanella virginica. Linn. Spm. 230.

A NATIVE of our country, as at Westminster, Iowestoft, &c. The Rev. Mr. Baker and A. D. Lankford, Esq. sent from Westminster. The beautiful flowers may be found in July, not much before they expand early in fine weather and in the early part of the day.
 Root long, creeping, perennial. Stems geminate, spreading in a circular form, 2 or 3 inches long, but little branched, angular, purplish. Leaves oblongish, 1 or 2 inches long, small, dark-green, heart or kidney-shaped entire, sometimes a little angulate. The whole herb is fragrant and medicinal. Flowers few and large, sessile, solitary, on long flower-stalks thickened upwards, and with 3 or 4 distinct membranous angles. Bracteen large, ovate, close to the flower. Calyx-leaves large, ovate. Corolla with five acute angles, rose-coloured, the plain yellowish. Anthers yellow. Stigma small and sharp. Capsule four-lobed.





April 1790 Published by J. B. B. by London.

LOLIUM perenne.

Perennial Darnel, or Rye-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of one husk, fixed, many-flowered.

SPEC. CHAR. Flowers beardless. The little spikes compressed, longer than the calyx.

SYN. *Lolium perenne.* *Linn. Sp. Pl.* 122. *Hudf. Fl.*

An. 55. *With. Bot. Arr.* 120. *Relh. Cant.* 52.

Sibth. Ox. 50. *Leers Herb.* 47. *t.* 12. *f.* 1.

Gramen loliaceum angustiore folio et spica. Raii

Syn. 395.

THIS very common species of grass is well known to the farmer by the name of Rye-grass, Ray-grass, or Crap. Its agricultural merits were first discovered in Norfolk, and from thence the seeds have been distributed throughout the kingdom, those who bought them little suspecting the plant was already a weed in their own fields. Its chief use is for an early crop of hay upon high or sandy lands. It makes a fine turf; but though the roots are perennial, it does not last many years, except (according to Stillingfleet) the soil be very rich.

Root of a few simple fibres. Stems a foot high, round, smooth, rigid, with swelling purplish joints. Leaves dark green; stipulæ short and entire. Spike two-ranked and compressed, the common stalk zigzag. Husks lanceolate and acute. Antheræ cloven at each end, purple. Stigmas sessile, downy above. Germen roundish. Seed linear.

The spike is sometimes branched in an alternate manner, and more frequently very much condensed into a flat oval form. It flowers in June.

LOLIUM perenne.

Perennial Ryegrass, or Ryegrass.

TRINIDAD, D. C.

Gen. Char. Cal. of one-half, fixed, many-flowered.
 Spec. Char. Flowers in spikes. The little spikes
 condensed, longer than the calyx.
 Str. Liliaceae perenne. Liliaceae. Herb. Tr.
 No. 55. Herb. Bot. Tr. 186. Herb. Cam. 52.
 Subst. On 50. Leaves of a 1/2 ft.
 German Liliaceae perenne Liliaceae. Herb.

THIS very common species of grass is well known to the
 farmer by the name of Ryegrass, or Ryegrass. Its
 agricultural merits were first discovered by Robert R. Smith, and from
 thence the seeds have been distributed throughout the kingdom.
 Those who bought from him have told that the plant was already
 a weed in their own fields. Its seed sown in an early crop
 of hay upon high or sandy lands, it makes a fine turf, but
 though the roots are permanent, it does not last many years, ex-
 cept (according to Smith) when the soil is very rich.
 Root of a 1/2 ft. single fibres. Stems a foot high, round,
 smooth, rigid, with leafy petioles jointed. Leaves dark
 green; ligules short and narrow. Spikes two-ranked and com-
 pressed, the common leafy bracts. Hanks lanceolate and acute.
 Anthers eleven at each end, purple. Stigmas bilobed, downy
 above. German Liliaceae perenne.
 The spike is sometimes branched in an alternate manner, and
 more frequently very much condensed into a bar-oval form.
 It flowers in June.



CYNOSURUS cristatus.

*Crested Dog's-tail Grass.**TRIANDRIA Digynia.*GEN. CHAR. *Cal.* of 2 husks, containing few florets.*Partial Receptacle* unilateral; leafy.

SPEC. CHAR. Bractææ pinnatifid.

SYN. *Cynosurus cristatus.* *Linn. Sp. Pl.* 105. *Huds. Fl.**An.* 59. *With. Bot. Arr.* 95. *Relb. Cant.* 39.*Sibth. Ox.* 52. *Leers Herb.* 49. *t.* 7. *f.* 4.Gramen cristatum. *Raii Syn.* 398.

THIS grass is equally common with the preceding, making a principal part of the turf on high gravelly or chalky soils, in parks, lawns and sheep-walks, and affords good nourishment to those animals as well as to deer.

The root is tufted, perennial, with long simple fibres. Stems very erect, from a foot to 18 inches high, rigid, round, smooth, clothed about the lower part with shortish, alternate, palish leaves. Stipulæ short. Spike green, erect, about 2 inches long, composed of numerous spikelets, all leaning one way, on a zigzag stalk. Each spikelet is accompanied by another abortive one, which Linnæus calls the bractææ, resembling a small double-toothed comb. These remain long upon the stalk, turning of a yellowish colour in decay. Ray mentions a variety with 4 rows of spikelets. This *Cynosurus* flowers in June or July.

CYNOSURUS cristatus.

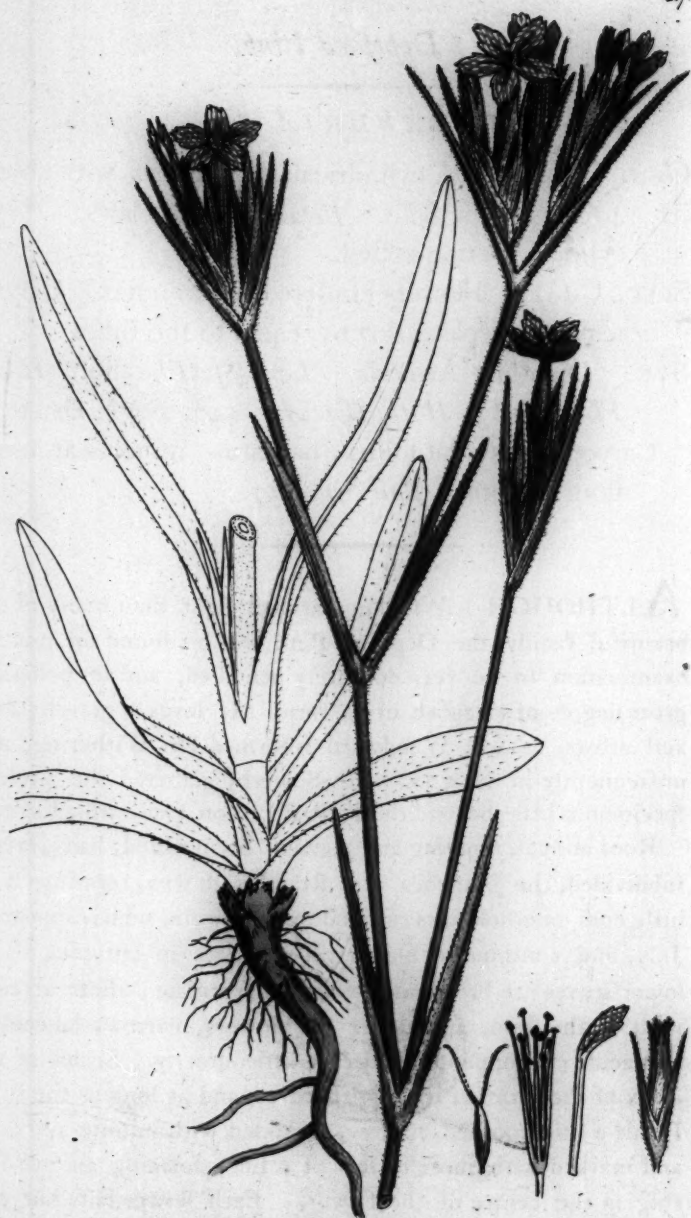
Crested Dog-tail Grass.

TRINIA D. Don.

GEN. CHAR. Cal. of 2 parts containing few flowers.
 Partially prostrate, cristate, leafy.
 SPEC. CHAR. Bracts pinnatifid.
 SYX. *Cynosurus cristatus* Lam. Sp. Pl. 105. Herb. H.
 No. 50. Webb. Bot. Voy. 95. Rob. Can. 39.
 Sibth. Ox. 52. Less. Herb. 40. 1. 1. 4.
 Gmelin *cristatus*. Bauh. Pin. 398.

THIS Grass is equally common with the preceding, making a principal part of the turf on high gravelly & shaly soil, in fens, lawns and sheep-walks, and affords good nourishment to those animals as well as to deer.
 The root is thick, horizontal, with long simple fibres. Stems very erect, from a foot to 1½ inches high, rigid, round, smooth, clothed about the lower part with thin, alternate, pale leaves. Stipule linear. Spike erect, about 2 inches long, composed of numerous jointed, all bearing one way, on a zigzag stalk. Each joint is accompanied by another shorter one, which I have called the bract, resembling a small double-rosetted comb. This is attached upon the stalk, near the base of a yellowish colour in decay. Ray mentions a variety with 4 rows of spikelets. This *Cynosurus* flowers in June or July.





April 1798 Published by J. Smurby London

DIANTHUS Armeria.

*Deptford Pink.**DECANDRIA Digynia.*

GEN. CHAR. *Cal.* cylindrical, of one leaf, with about 4 scales at the base. *Petals* 5, with claws. *Caps.* cylindrical, one-celled.

SPEC. CHAR. Flowers clustered, in bundles. Calyx-scales lanceolate, downy, equal to the tube.

SYN. *Dianthus Armeria.* *Linn. Sp. Pl.* 586. *Huds.*

Fl. An. 183. *With. Bot. Arr.* 440. *Sibth. Ox.* 139.

Caryophyllus latifolius barbatus minor annuus, flore minore. *Raii Syn.* 337.

ALTHOUGH less striking at first sight than many of its beautiful family, the Deptford Pink will be found on minute examination to be very delicately pencilled, and to possess a great degree of elegance in its form. It loves a gravelly soil, and grows, as Mr. Woodward informed Dr. Withering, not unfrequently in Norfolk. Mr. Sowerby gathered the present specimen a little beyond the Falstaff Inn on Gad's hill, Kent.

Root annual, tapering and zigzag. Stem round, leafy, erect, subdivided, the branches very straight, downy, terminated by little compound clusters of inodorous flowers, which appear in July, and continue to bloom till very late in autumn. The lower leaves are broad and somewhat spatulate; those at each joint of the stem, and under the flowers, narrow, lanceolate and acute; all opposite, entire, a little downy. Scales of the calyx of the form of the upper leaves, and as long as the tube. Petals a little toothed, narrow, sprinkled with minute red dots, and marked with more or less of a line, forming an eye-like ring in the centre of the flower. Each flower lasts but one day, and there is seldom above one expanded at a time in each cluster. The seeds are black, flat and minute.

DIANTHUS Armeria.

Daffod Pink.

ARMERIA

Gen. Char. Cal. cylindrical, or somewhat with about
 4 lobes at the base. Petals 5, with claws. Caps.
 cylindrical, one-celled.
 Spec. Char. Flowers clustered in branches. Calyx-
 lobes 5, somewhat downy, equal to the tube.
 Syn. Diantus Armeria. Linn. Sp. Pl. 586. Webb.
 W. Arb. 1825. W. Arb. Bot. 440. Webb. Ex. 139.
 Cruciferae. Linn. Bot. 440. Webb. Ex. 139.
 Diantus Armeria. Linn. Sp. Pl. 586.

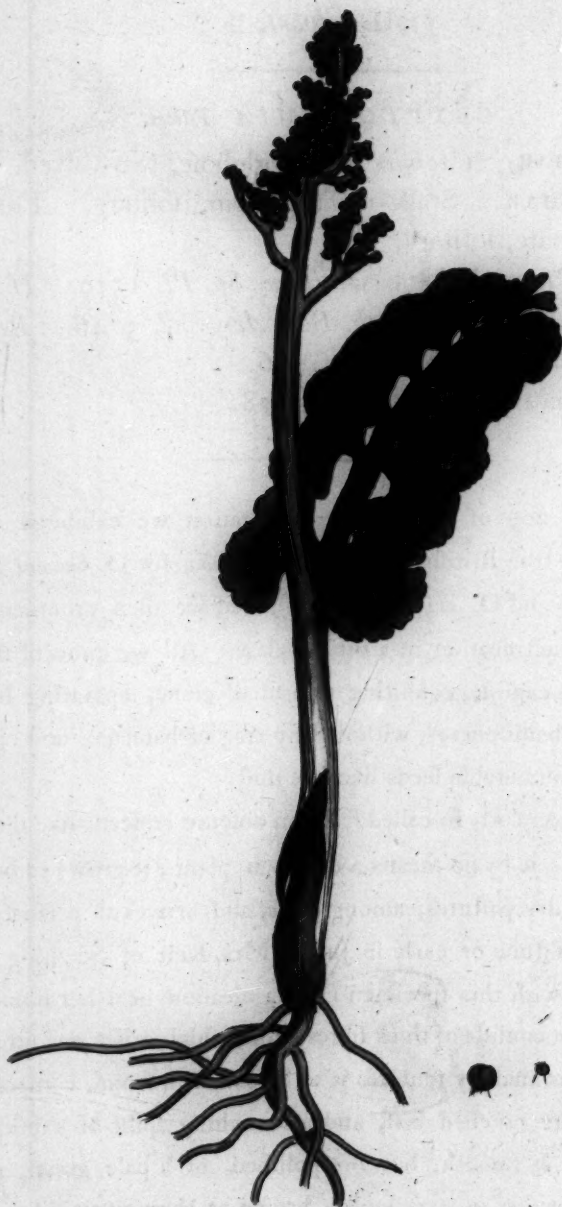
ALTHOUGH less striking in habit than many of its
 beautiful family, the Daffod Pink will be found on minute
 examination to be very distinctly peculiar, and to possess a
 great degree of elegance in its form. It leaves a fleshy feel,
 and grows, as Mr. Webb has observed Dr. Whittington, not
 independently in itself. Mr. Webb has named the present
 specimen a little beyond the Daffod Pink on God's Hill, Kent.
 Root annual, woody and naked. Stem naked, leafy, erect,
 bipinnate, the branches very slender, downy, terminated by
 little compound clusters of nodding flowers, which appear in
 July, and continue to bloom till very late in autumn. The
 lower leaves are broad and somewhat pinnate; those at each
 joint of the stem, and within the flowers, lanceolate
 and acute; the upper ones are more downy. Center of the
 calyx of the form of a tube, and as long as the tube.
 Petals 5, white, rounded, narrow, marked with minute red dots,
 and marked with most distinct of a deep, shining an eye-like
 ring in the center of the flower. Each flower falls but one
 day, and there is seldom more than one open at a time in each
 cluster. The seeds are black, flat and minute.

Almond
The almond tree is a small tree, about 15 feet high, with a spreading canopy of leaves. The leaves are ovate, with serrated margins, and are green above and pale green below. The flowers are small, white, and are borne in a loose raceme at the end of the branches. The fruit is a small, round, greenish-brown nut, which is covered by a thin, fleshy, greenish-brown husk. The husk is covered by a thin, greenish-brown, papery covering, which is called the "almond skin". The nut is covered by a thin, greenish-brown, papery covering, which is called the "almond skin".

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April 1796 Published by J. Bowerby London.

OSMUNDA Lunaria.

Moonwort.

CRYPTOGAMIA Filices.

GEN. CHAR. *Capsules* naked, globose, two-valved.

SPEC. CHAR. Stalk on the stem, solitary. Frond pinnate, solitary.

SYN. *Osmunda Lunaria*. *Linn. Sp. Pl.* 1519. *Huds.*

Fl. An. 449. *With. Bot. Arr.* vol. 3. 46. *Relb.*

Cant. 386. *Sibth. Ox.* 266.

Lunaria minor. *Raii Syn.* 128.

IN plate 209 of the present publication we exhibited the other only true British species of *Osmunda* (for *O. Spicant* is a *Blechnum*, and *O. crispa* a *Pteris*), and we then promised to give the fructification in a future plate. All we know of that part is the capsule, consisting of a small globe, separating into two equal hemispheres, without any ring or bandage, and containing innumerable seeds like fine dust.

The Moonwort, so called from an obscure crescent-like shape in its leaves, is by no means a common plant; it grows in both moist and dry pastures, among grass, and arrives at perfection the end of June or early in July. Mrs. Kett of Seething favoured us with this specimen from a meadow near her house.

The root consists of thick fibres, from which arises one simple stem, or (as analogy requires it to be called) a frond, composed of a pinnate notched leaf, and a branching spike of capsules. Every part is smooth, but not polished, of a pale green, the capsules turning to a yellowish brown as they ripen. Sometimes the leaf is bipinnate, but that variety is rare.

OSMUNDA Lunaria

Moerhous

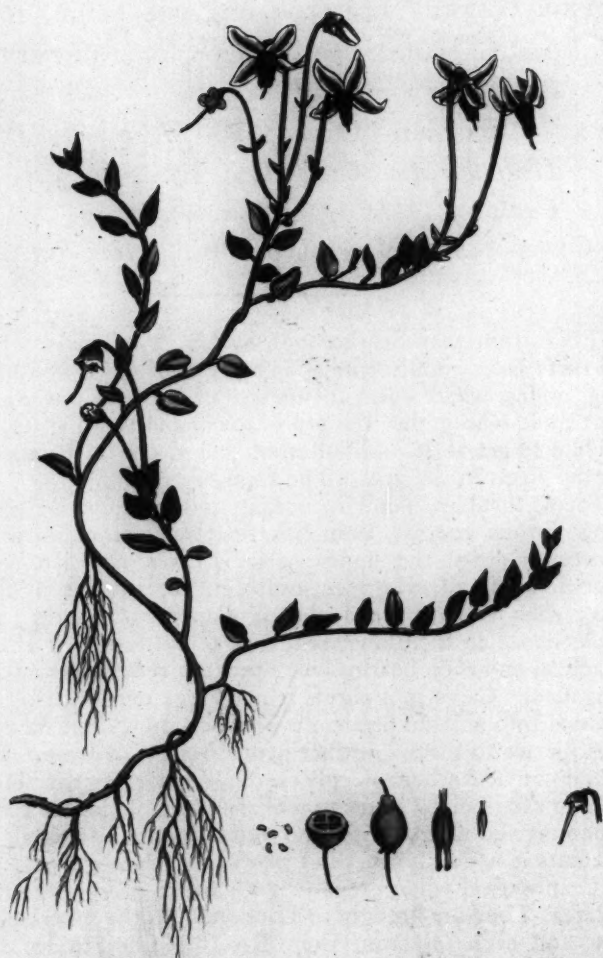
CRYPTOGAMIA Ferns

Gen. CHAR. Capsulae baccatae, globosae, two-valved.
 SPEC. CHAR. Stalk on the stem, solitary. Pinnate, solitary.
 SYNT. Osmunda Lunaria. Linn. Sp. Pl. 1519. Herb.
 W. & A. Bot. Brit. vol. 3. 46. Herb.
 C. & G. Bot. Brit. vol. 1. 150.
 L. & S. Bot. Brit. vol. 1. 150.

In plate 200 of the present publication we exhibited the
 other only true British species of Osmunda (for O. Spheeris is a
 Blagayana, and O. cuneata a Pteris), and we then promised to
 give the fructification in a future state. All we know of that
 part is the capsule, consisting of a small globe, separating into
 two equal hemispheres, without any ring or bandage, and con-
 taining innumerable seeds like the dust.

The Moonwort, so called from its obscure crescent-like shape
 in its leaves, is by no means a common plant; it grows in both
 moist and dry pastures, among grass, and arrives at perfection
 the end of June or early in July. Miss Ken of Berthing in-
 vented us with this specimen near a meadow near her house.
 The root consists of thick fibres, from which arise one simple
 stem, or (as analogy suggests it to be called) a broad, compound
 of a pinnate notched leaf, and a branching spike of capsules.
 Every part is smooth, but not polished, of a pale green, the
 capsules turning to a yellowish brown as they ripen. Some-
 times the leaf is bipinnate, but that variety is rare.





1790 Published by James Sowerby, London.

VACCINIUM Oxycoccus.

*Cranberry.**OCTANDRIA Monogynia.*

GEN. CHAR. *Cor.* of 1 petal. *Filaments* arising from the-receptacle. *Berry* inferior, with 4 cells and many seeds.

SPEC. CHAR. Leaves evergreen, entire, revolute, ovate, acute. Stems creeping, thread-shaped, smooth.

SYN. *Vaccinium Oxycoccus.* *Lim. Sp. Pl.* 500. *Huds. Fl. An.* 164. *With. Bot. Arr.* 395. *Relb. Cant.* 154. *Dicks. H. Sicc. fasc.* 5. 11.

Oxycoccus seu *Vaccinia palustris.* *Raii Syn.* 267.

SENT from near Scarborough by Mr. W. Travis. It grows on turfy bogs, mostly entangled in tufts of *Sphagnum* and other bog mosses, which cover the surface of clear shallow waters, so that those who gather the fruit are obliged to wade up to their middle to get at it. The flowers come out in June, and the berries ripen in August. The roots are perennial.

Stems shrubby, slender, trailing and creeping by means of long fibrous roots. Branches scattered, procumbent, leafy, flowering about the upper part. Leaves alternate, on short foot-stalks, small, evergreen, ovate, entire, revolute in the margin; dark shining green above; glaucous beneath. Flower-stalks about an inch long, red, with a few scattered or opposite bractæ, and each bearing one drooping red flower of singular elegance. Calyx in 4 obtuse fringed segments. Corolla deeply divided into 4 ovate petals, on which account some have judged this species to form a distinct genus from *Vaccinium*. Stamina flat, downy. Antheræ deeply cloven, discharging the pollen by a hole in each point. Berry pear-shaped or globular, of 4 cells, red when arrived at maturity, and often spotted. Our figure represents it not fully ripe, in order to shew the cells.

Cranberries, when prepared with sugar, are grateful to most palates. They are brought to London from the moorland counties, and even imported from Russia. The Swedes have no idea of putting them to any other use than to boil silver plate to its proper whiteness, the sharp acid of the cranberry corroding the external particles of the copper alloy.

RESEDA - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*

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Reseda alba - *Reseda*

Reseda alba - *Reseda*

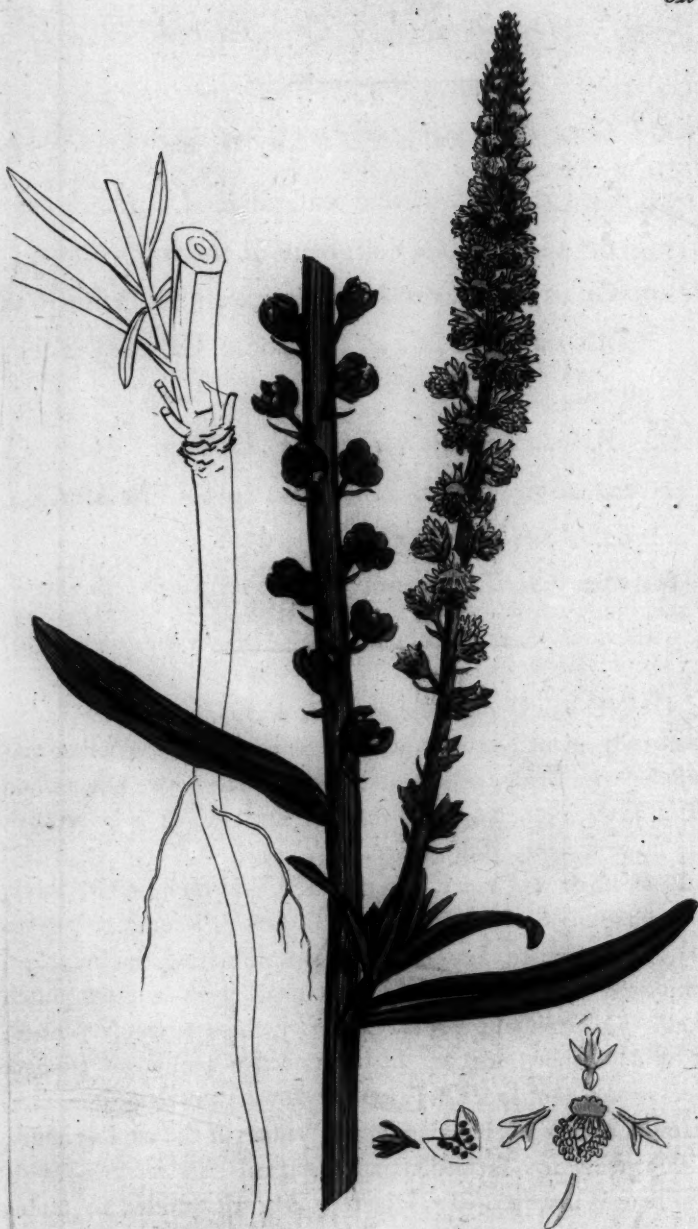
Reseda alba - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*

Reseda alba - *Reseda*





May 1. 1796. Published by J. P. B. B. B.

RESEDA Luteola.

*Dyer's-weed, or Yellow-weed.**DODECANDRIA Trigynia.*

GEN. CHAR. *Cal.* of one leaf, divided. *Petals* jagged. *Caps.* of one cell, open at the top.

SPEC. CHAR. Leaves lanceolate, entire, with one tooth on each side at the base. Calyx in 4 segments.

SYN. Reseda Luteola. *Linn. Sp. Pl.* 643. *Hudf. Fl. An.* 207. *With. Bot. Arr.* 492. *Relb. Cant.* 184. *Sibth. Ox.* 150.

Luteola. *Raii Syn.* 366.

FOUND chiefly on waste ground, walls and similar places, plentifully about Norwich, where it is used in the woollen manufactory for dyeing yellow and green. The entire plant when about flowering is employed for that purpose. It is an annual, and flowers about Midsummer.

Root small and taper. Stem 2 or 3 feet high, erect, thick, somewhat angular, branched, leafy. Leaves alternate, lanceolate, obtuse, entire, smooth. Spikes terminating the branches, consisting of numerous pale greenish flowers without much smell. Calyx in 4 segments. Petals 3, the uppermost 3-lobed, its middle lobe cloven; the lateral ones simple or 3-lobed. Nectary on the upper side of the flower, notched, greenish. Stamina numerous, hanging down. Valves of the capsule acute, with 3 yellowish intermediate appendages.

There is a variety mentioned by Ray with curled or undulated leaves. The gaping capsule of this genus is remarkable.

RESIDA Lincoln.

Dyer's-cum, or 10000-cum.

DOUGLAS AND RICHARDSON.

GRASS. Calyx of one leaf, divided. Petals 2.

GRASS. Calyx of one leaf, open at the top.

GRASS. Leaves lanceolate, entire, with one

vein on each side at the base. Calyx is a leg-

ume.

GRASS. Petals lanceolate. Lvs. 2. Fl. 2. Hb. 17.

Lvs. 2. Fl. 2. Hb. 17. Pet. 2. Hb. 17.

Lvs. 2. Fl. 2. Hb. 17.

Lincoln. Hb. 17. 17.

FOUND in the woods, near the river, with the usual

plants, about 1000 ft. above the sea, in the woods near

the river, near the river, near the river, near the river.

about 1000 ft. above the sea, in the woods near

the river, near the river, near the river, near the river.

about 1000 ft. above the sea, in the woods near

the river, near the river, near the river, near the river.

about 1000 ft. above the sea, in the woods near

the river, near the river, near the river, near the river.

about 1000 ft. above the sea, in the woods near

the river, near the river, near the river, near the river.

about 1000 ft. above the sea, in the woods near

the river, near the river, near the river, near the river.

REEDA, Latex.

Wild Mignonette or Bog Rose.

Reeda, or Bog Rose.

Common in the low grounds of the River Thames, especially in the neighbourhood of the mouth of the river.

It is a very common plant in the low grounds of the River Thames, especially in the neighbourhood of the mouth of the river.

It is a very common plant in the low grounds of the River Thames, especially in the neighbourhood of the mouth of the river.

It is a very common plant in the low grounds of the River Thames, especially in the neighbourhood of the mouth of the river.

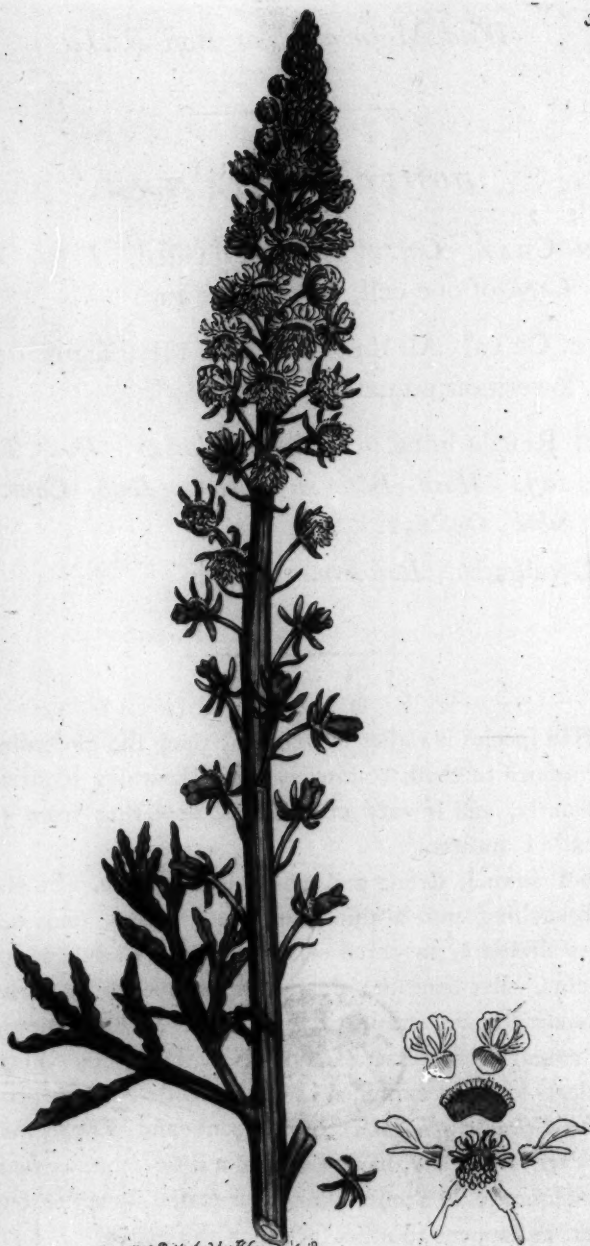
The plant is a very common one in the low grounds of the River Thames, especially in the neighbourhood of the mouth of the river.

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The plant is a very common one in the low grounds of the River Thames, especially in the neighbourhood of the mouth of the river.





R E S E D A lutea.

*Wild Mignonette, or Base Rocket.**DODECANDRIA Trigynia.*

GEN. CHAR. *Cal.* of one leaf, divided. *Petals* jagged.
Caps. of one cell, open at the top.

SPEC. CHAR. All the leaves with three segments; the
 lowermost pinnate.

SYN. *Reseda lutea.* *Linn. Sp. Pl.* 645. *Huds. Fl. An.*
 207. *With. Bot. Arr.* 493. *Relb. Cant.* 184.
Sibth. Ox. 151.

R. vulgaris. *Raii Syn.* 366.

THIS species is rather less general than the preceding, being confined to chalk countries, where however it grows very abundantly, and is very ornamental, flowering from June to the end of autumn.

Root annual, strong and woody in substance. Stems several, branching into a thick bushy tuft, round, smooth, leafy. Leaves alternate, in three or more linear undulated pointed segments, paler beneath; the lower ones once or even twice pinnated. Spikes terminating the branches, of numerous sulphur-coloured flowers. Calyx in six segments. Petals six, singularly lobed as expressed in our figure. Nectary green.

The *Reseda crispa gallica* of Boccone and Ray seems to be a very trivial variety, having leaves a little more curled, and, in consequence of a mild climate or season, living through the winter, as happens to other species of this genus.

RESEDA lutea.

Wild Mignonette, or Bafe Reseda.

DODECANDRIA Trigyna.

GRAN. CHALK. Cal. of one leaf, divided. Petals jagged.
Cup of one cell cups at the top.

SPICE. CHALK. All the leaves with three segments; the
lowermost pinnate.

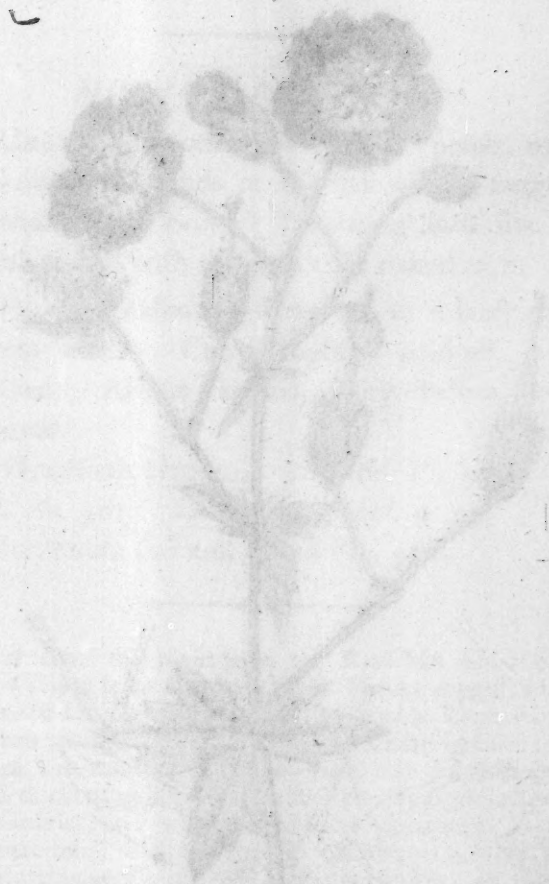
STY. Reseda lutea. Linn. S. Pl. 645. Hook. Fl. An.
207. Webb Bot. Am. 403. Rob. Cant. 184.

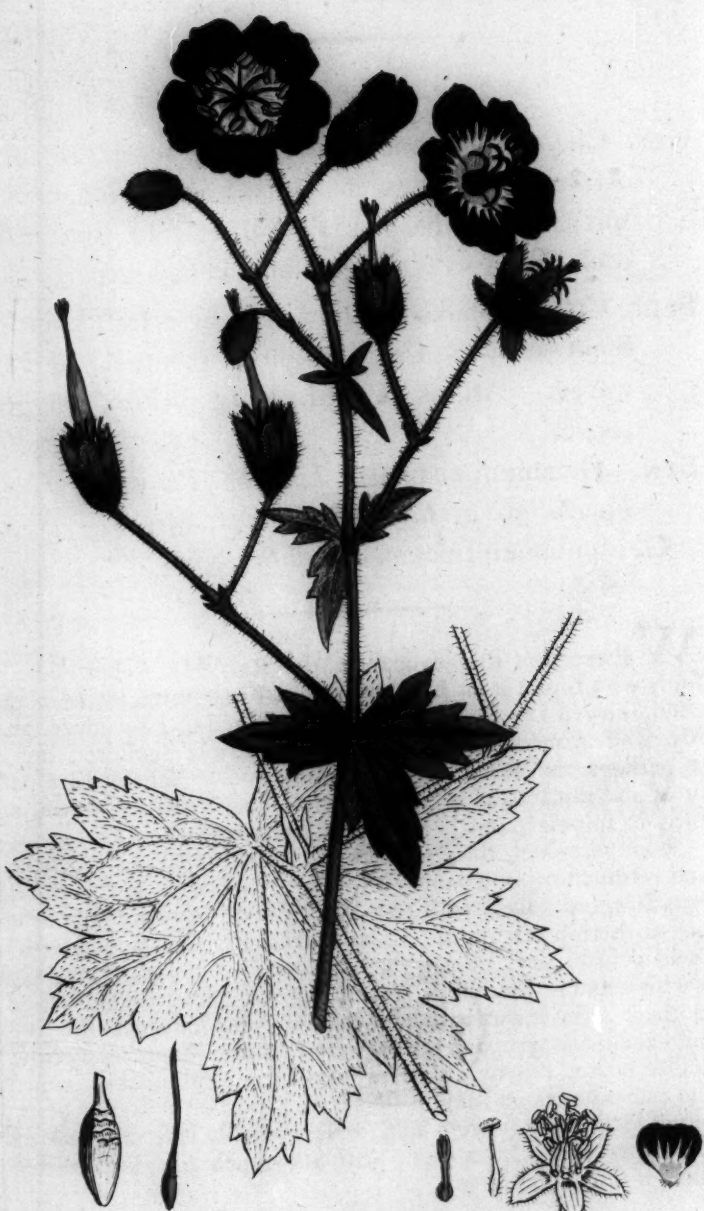
SW. O. 181.

R. vulgaris. R. 511. 305.

THIS species is rather less general than the preceding, be-
ing confined to chalk country, where however it grows very
abundantly, and is very ornamental, flowering from June to
the end of autumn.
Root annual, strong and woody in the first year. Stems low-
er, branching into a thick, knotted, smooth, leafy,
leaves alternate, in three or four linear, undulated pointed
segments, pale beneath; the lower ones of two or three
pinnate, the upper ones of two or three pinnate. The
pinnules are linear, undulated, pointed, the lower ones of two
or three pinnate. The flowers are small, white, the
petals are five, the leaves are three, the fruit is a
triangular lobed capsule, the capsule is green.
The Reseda lutea is a native of the south of France and Italy, where it is
a very naturalized plant, having a little more curled, and
in consequence of a mild climate, or rather, living through the
winter, as happens to other species of this genus.

ORANUM





1795 *Ranunculus* by James Sowerby, London.

GERANIUM phæum.

Dusky Cranesbill.

MONADELPHIA Decandria.

GEN. CHAR. *Style* one. *Cor.* of five petals, regular. *Nectary* five glands at the base of the longer stamina. *Fruit* beaked, separating into five arilli, each tipped with a long simple naked awn.

SPEC. CHAR. Stalks two-flowered, in a leafy panicle. Stem erect. Calyx slightly pointed. Petals waved. Arillus keeled, hairy below, rugged above.

SYN. *Geranium phæum.* *Linn. Sp. Pl.* 953. *Huds. Fl. An.* 301. *Relb. Cant. Suppl.* 2. 14.

G. montanum fuscum. *Raii Syn.* 361.

WE received this plant from the Rev. Mr. Abbot of Bedford, who found it at Everholt. Mr. Sims, druggist, of Norwich, shewed Dr. Smith specimens gathered in Lancashire, and Mr. Relhan mentions it as a native of Cambridgeshire; but it is perhaps the rarest British *Geranium*. It inhabits dry pastures and thickets, chiefly in mountainous countries, flowering early in summer, and is often cultivated in gardens.

Root perennial, thick and strong. Stem erect, hairy, forked and terminating in a panicle of numerous flowers, on spreading two-flowered stalks, with two pair of small brown chaffy bractæ at their bifurcation. Calyx-leaves elliptical, tipped with a small point, hairy. Petals dark chocolate-coloured, wavy, with a white claw. Stamina all fertile. Seed-cases strongly keeled, clothed in the lower part with thick upright hairs; at the summit naked, and wrinkled transversely. The leaves are many-lobed and crenate, downy, with prominent interbranching veins; the radical ones on longish foot-stalks, the rest solitarily placed opposite to each flower-stalk, and gradually lessening towards the upper part of the stem. Stipulæ much like the bractæ, though somewhat larger.

GERANIUM - phaeum.

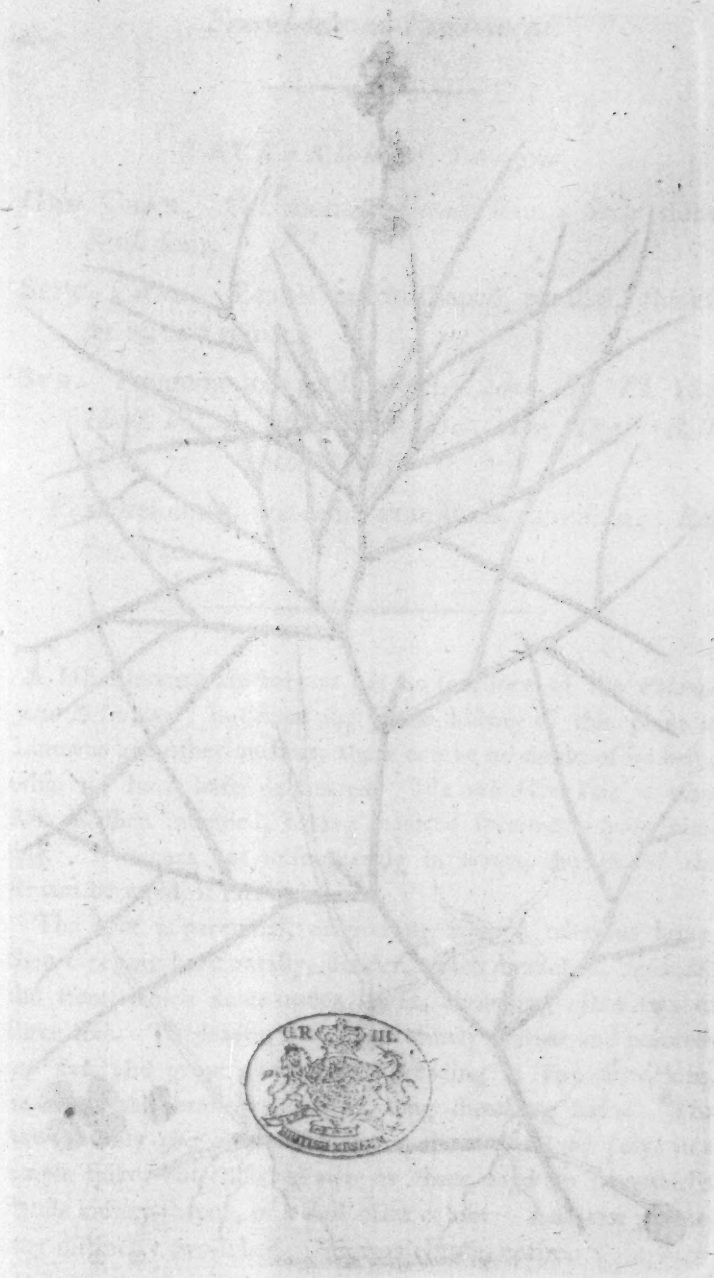
Duffy Cranfield.

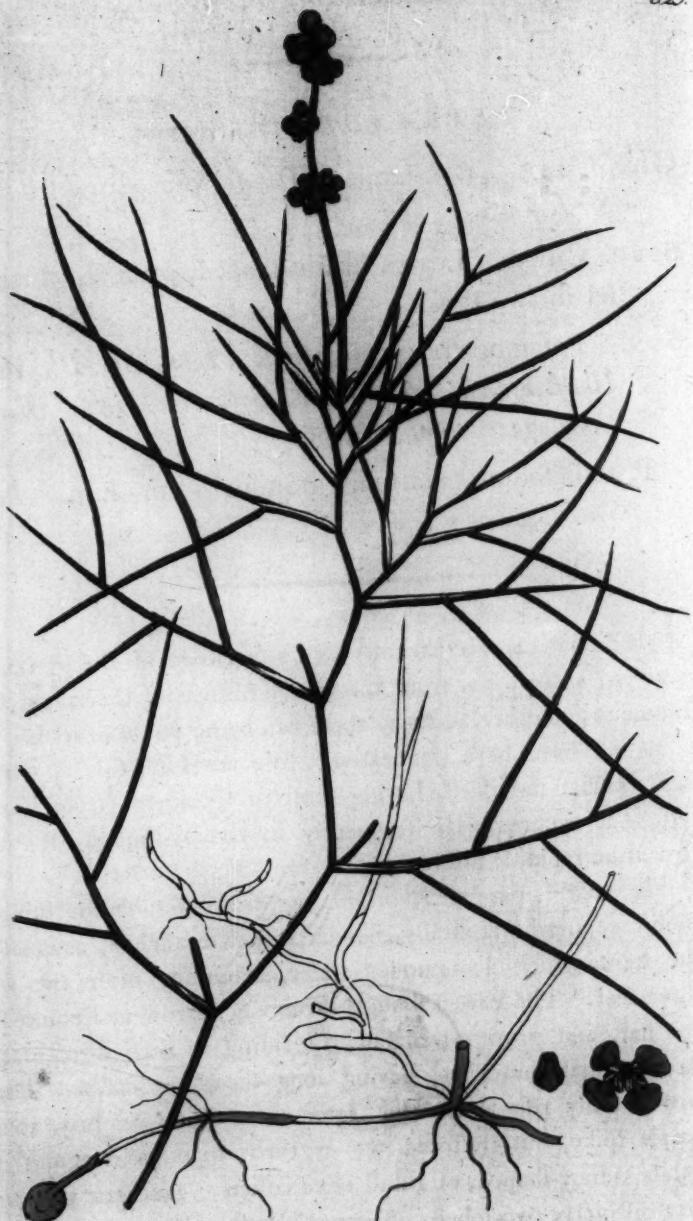
MONSIEUR DE LAUNAY.

Gen. CHAR. Flowers. Corolla five petals, regular.
 A narrow five-lobed at the base of the longer lobes.
 inner lobes beak, separating into five anthers.
 each tipped with a long simple naked awn.
 Siliqua. Siliqua two-lobed, in a leafy pinnule.
 Stem erect. Calyx slightly pointed. Petals
 waved. Anthers naked hairy below, rosette
 above.
 Siliqua. Geranium phaeum. Linn. Sp. Pl. 933. Hoffm.
 Fl. Helv. 401. Linn. Comp. 2: 14.
 Geranium phaeum. Linn. Sp. Pl. 933.

W. I received this plant from the Rev. Mr. Abbot of Bath-
 ford, who found it at Kew. It is a small shrubby plant, of the
 which, indeed, Dr. Smith has given a description in his book, and
 Mr. Robt. Smith has also given a description of it in his book, but it
 is perhaps the most common of the Geraniums. It inhabits dry pas-
 tures and thickets, chiefly in mountainous countries, flowering
 early in summer, and is often cultivated in gardens.
 Root perennial, thick and woody. Stem erect, hairy, forked
 and terminating in a panicle of numerous flowers on pedicels
 two-flowered stalks, with two leafy bracts at the base of each
 one at their insertion. Calyx five-lobed, elliptical, tipped with a
 small point. Petals dark chocolate-colored, waved, with
 a white claw. Stamens six fertile. Four cells strongly beaked,
 located in the lower part, with thick upright hairs at the base
 and wrinkled membrane. The five-lobed many-toothed
 and spreading downy with prominent unbranched veins;
 the radical ones on longish foot-stalks, the rest following upwards
 opposite to each flower-stalk, and gradually becoming towards
 the upper part of the stem. Siliqua much like the beak
 though somewhat larger.

POTAMOGETON perfoliatus





POTAMOGETON pectinatum.

Fennel-leaved Pond-weed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* four. *Style* none.
Seeds four.

SPEC. CHAR. Leaves bristle-shaped, parallel, thickly
set in two ranks.

SYN. Potamogeton pectinatum. *Linn. Sp. Pl.* 183.
Huds. Fl. An. 76. *With. Bot. Arr.* 175. *Relb.*
Cant. 72. *Sibth. Ox.* 66.

P. millefolium, seu foliis gramineis, ramosum. *Raii*
Syn. 150.

THE Linnæan Herbarium has no specimen of the *Potamogeton pectinatum*; but from the whole history of this plant in Linnæus and other authors, there can be no doubt of its being what we have here delineated. We are sure this is what Mr. Relhan intended, having received specimens from himself. It occurs not unfrequently in rivers, though, if the stream be rapid, it rarely flowers.

The root is perennial, originating from a tuberos lump, then creeping horizontally, slender, much branched, as is also the stem, which floats under water, extending often two or three feet. The leaves, though extremely narrow and pointed, are flat, and grow alternately, spreading in two directions, on the small branches, having long sheathing bases. The flowers only rise above the water about June or July, in a simple spike, but clustered two or three together irregularly. Petals kidney-shaped, of a dull olive colour. Antheræ yellow, very distinctly two-lobed. Stigmas obtuse, entire.

POTAMOGETON pectinatus.

Fennel-leaved Pond-weed.

TETRAONDRIA Tricarpa.

Gen. CHAR. Cal. none. Petals four. Style none. Seeds four.

Spec. CHAR. Leaves bristle-shaped, parallel, thickly set in two ranks.

Syn. Potamogeton pectinatus. Lam. Sp. Pl. 183.

Humb. Pl. Ar. 16. Willd. Bot. Berol. 475. Rell.

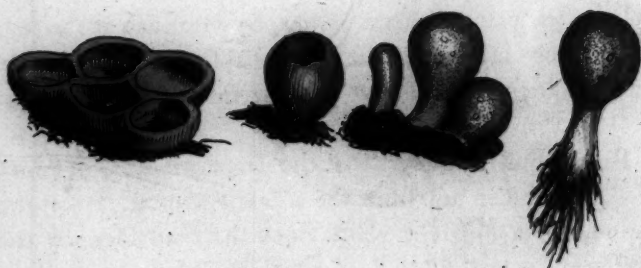
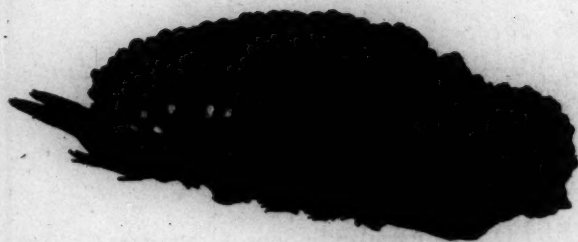
Gen. 77. Willd. G. 80.

P. multiflorus (in foliis gramineis ramosis. Lam. Sp. Pl. 183.)

THE Potamogeton pectinatus has no specimen of the Potamogeton pectinatus, but from the whole history of this plant in Potamogeton pectinatus, there can be no doubt of its being what we have here delineated. We are sure this is what Mr. L. has named, having received specimens from him. It occurs not infrequently in rivers, though, in the stream be rapid, it rarely grows.

The root is perennial, originating from a tuberosity lump, from creeping horizontally, below, much branched, as is also the stem, which floats under water, extending often two or three feet. The leaves, though extremely narrow and pointed, are flat, and grow alternately, fasciated in two directions on the small branches, having long sheathing bases. The flowers only rise above the water about June or July in a simple spike, but clustered two or three together irregularly. Petals kidney-shaped, of a dull olive colour. Anthers yellow, very distinctly two-lobed. Stigmas oblong, entire.





May 1796 Published by J. B. Smith London.

TREMELLA granulata.

Granulated Tremella.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Fructification* scarcely perceptible, in a membranous jelly-like substance.

SPEC. CHAR. Green, globular, clustered, membranous, containing a fluid.

SYN. Tremella granulata. *Huds. Fl. An.* 566. *With. Bot. Arr.* v. 3. 225. *Relb. Cant. Suppl.* 1. 26.

T. globosa. *Weis Gotting.* 28.

T. palustris, vesiculis sphæricis fungiformibus. *Dill. Musc.* 55. t. 10. f. 17.

Ulva granulata. *Linm. Sp. Pl.* 1633. nec *Mant.* 136.

Lichenoides fungiforme, capitulis vel vesiculis sphæricis aqueo humore repletis. *Raii Syn.* 70.

GATHERED very abundantly Sept. 8, 1795, at Camberwell in a pond partly dried up, also on the mud of ditches in that neighbourhood. It consists of innumerable green globules, about the size of mustard seed, sessile at first, but soon elevated on a thick foot-stalk, attached to the mud by fibrous roots, but not connected with each other by any kind of crust or leaf. When walked upon they crackle under the feet like thin ice, and discharge a watery fluid; which also comes out spontaneously, as the plant advances in age, by an orifice at the top, and immediately afterwards the skin collapses, forming a little cup with a hole in the centre. See our magnified representations.

Mr. Relhan justly observes that the *Ulva granulata* of Murray's *Syst. Veg.* taken up from the *Mantissa*, must, from the description, be a different plant from that intended in the *Species Plantarum* and *Flora Suecica*, which last is unquestionably our present *Tremella*.

TRIMELLA granulata

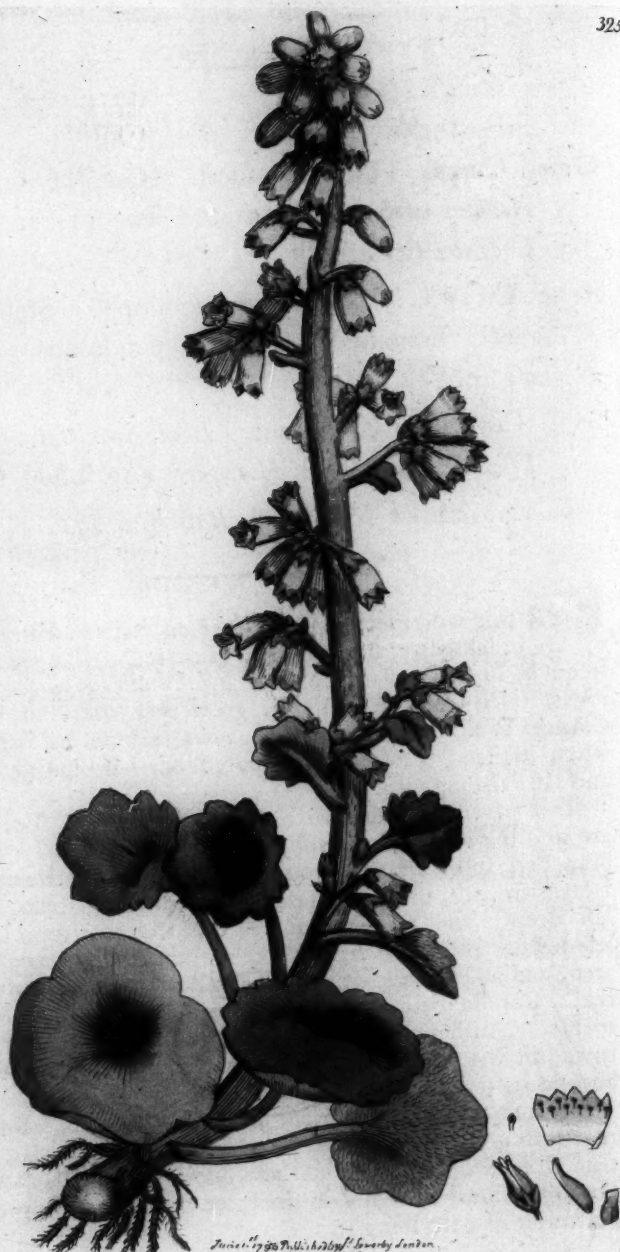
Granulated Trimella

CRYPTOGAMIA

Gen. Char. Fructification scarcely perceptible, in a
membranous jelly-like substance.
Spec. Char. Green, globular, clustered, membranous,
containing a fluid.
Syn. Trimella granulata. Linn. M. 48. 566. With.
Bot. Adv. 2. 225. Herb. Cant. Suppl. 1. 26.
T. globosa. W. in Götting. 28.
T. pallidula. Vahl. in Götting. 28.
Musc. 22. 1. 10. 1. 17.
Ulex granulata. Linn. M. 48. 566. 186.
Eichonopsis granulata. Linn. M. 48. 566. 186.
Eichonopsis granulata. Linn. M. 48. 566. 186.

GATHERED very abundantly Sept. 8, 1877, in Cambridge
in a good partly dried up, also on the mud of ditches in the
neighbourhood. It consists of innumerable green globules,
about the size of mustard seed, a little flattened, but soon flattened
on a thick foot-stalk, attached to the mud by dense roots,
but not connected with each other by any kind of stem or
leaf. When walked upon they crackle under the feet like thin
ice, and discharge a watery fluid, which also comes out sponta-
neously as the plant advances by any of an outlet at the top,
and immediately afterwards the plant collapses forming a little
cup with a hole in the centre. These are magnified representa-
tions.
Mr. Rolan informs that the Ulex granulata of Min-
n. 48. 566. is taken up from the flower, and from the
description, is a different plant from that intended in the
Gen. Char. and Spec. Char. which is in question.
Apply our present Trimella.





June 1790. Bot. W. & A. 1790. J. Sowerby London.

COTYLEDON Umbilicus.

Common Navel-wort.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* five-cleft. *Cor.* of one petal.
Nectary of five scales at the base of the germen.
Capsules five.

SPEC. CHAR. Leaves peltate, scolloped. Stem spiked,
 rarely branched. Flowers pendulous. Bractææ
 entire.

SYN. Cotyledon Umbilicus. *Linn. Sp. Pl.* 615. *Hudf.*
Fl. An. 194. *With. Bot. Arr.* 463. *Sibth. Ox.* 143.

C. vera, radice tuberosa. *Raii Syn.* 271.

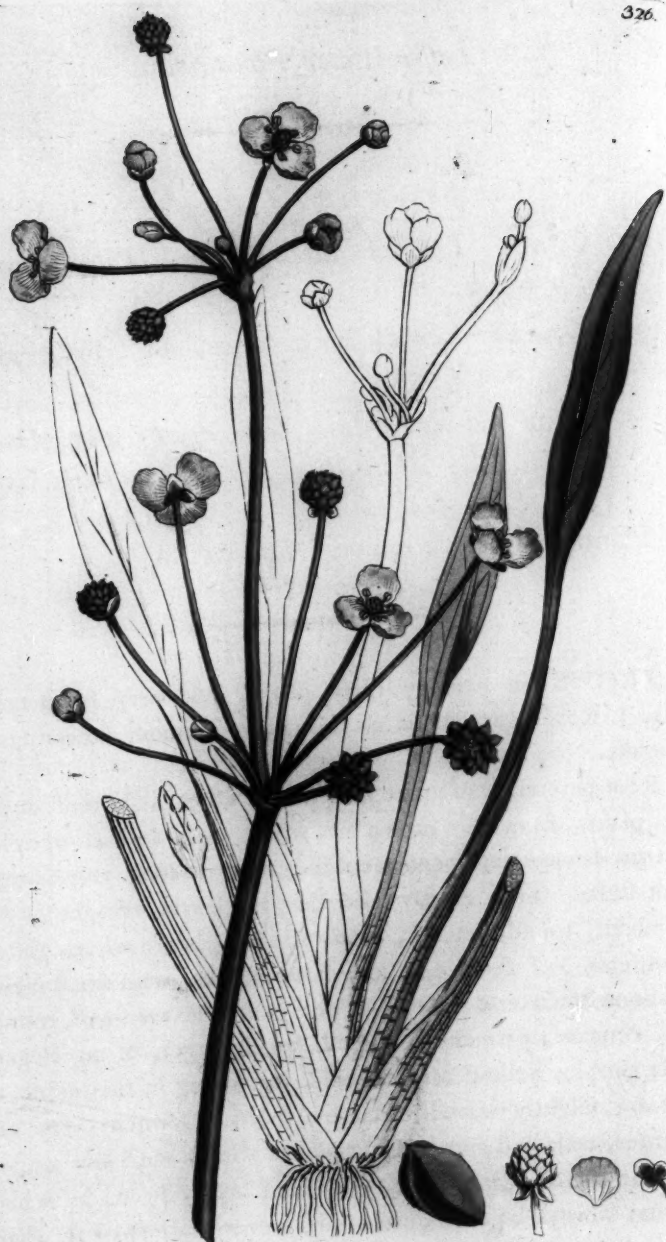
FOR this wild specimen, gathered on walls at Peterborough, we are indebted to the Rev. Mr. Hemsted. The plant is most frequent in the west of England and Wales, growing on moist rocks. In Gerarde's time it grew over the door of Poet's Corner, Westminster Abbey, but was not to be found there when his second edition was published. It flowers in June, and lasts through July.

Root perennial, tuberous. Stem round, very succulent (as are also the leaves), purplish, erect, terminating in a simple or branched spike of numerous, drooping, pale-yellow flowers. Leaves smooth, mostly peltate, on longish foot-stalks, more or less deeply and acutely crenate, those on the stem becoming less peltate and more deeply notched the higher they are situated, and at length changed for small, lanceolate, entire bractææ. Corolla cylindrical, the margin in five small erect segments. Antheræ on very short filaments, inserted in two rows just within the orifice of the corolla, and not projecting beyond its margin.

Though this be the variety β of Linnæus, yet being by far more common than his α , we think it best to retain it as the true *C. Umbilicus*, as all authors have done. If the α (Mr. Hudson's *lutea*) be really distinct, we shall take some other opportunity of describing it.

COTTLEDON Unpublished





Ranunc. 1796. Publ. ed. 1796. London.

ALISMA ranunculoides.

Lesser Water Plantain.

HEXANDRIA Polygynia.

GEN. CHAR. *Cal.* of three leaves. *Petals* three.
Seeds many.

SPEC. CHAR. Leaves linear-lanceolate. Fruit globose. Seeds acute.

SYN. *Alisma ranunculoides.* *Linn. Sp. Pl.* 487. *Huds. Fl. An.* 158. *With. Bot. Arr.* 382. *Relb. Cant.* 150. *Sibth. Ox.* 120.

Plantago aquatica minor. *Raii Syn.* 257.

GROWS in swampy turfy places, not very frequently. Mr. J. Rayer gathered it on Finchley common, flowering in August.

Root perennial, of many long simple fibres, as in most aquatic plants, from the crown of which arise several upright, narrow-lanceolate, smooth, entire leaves, on long very spongy foot-stalks. Stalk mostly taller than the leaves, upright or decumbent, round, smooth, bearing two or more whorls (often proliferous) of flowers on long flower-stalks, with small membranous bractæ at their insertion. Calyx-leaves small, roundish, concave, permanent. Petals much larger, of an elegant pale purple, yellow at their base, expanding in the middle of the day, slightly waved. Stamina short. Germens very numerous, collected into a small globe. Seeds with five angles, and an acute point, forming a round bristly head, by which it may always be distinguished from every variety of *A. Plantago*, the seeds of which are very blunt and compressed.

ALISMA ranunculoides.

Lesser Water Plantain.

HEXANDRIA, P. 125.

GRASS CHAIR. Cal. of three leaves. Petals three.
Seeds many.

GRASS CHAIR. Leaves linear-lanceolate. Fruit glo-
bose. Seeds acute.

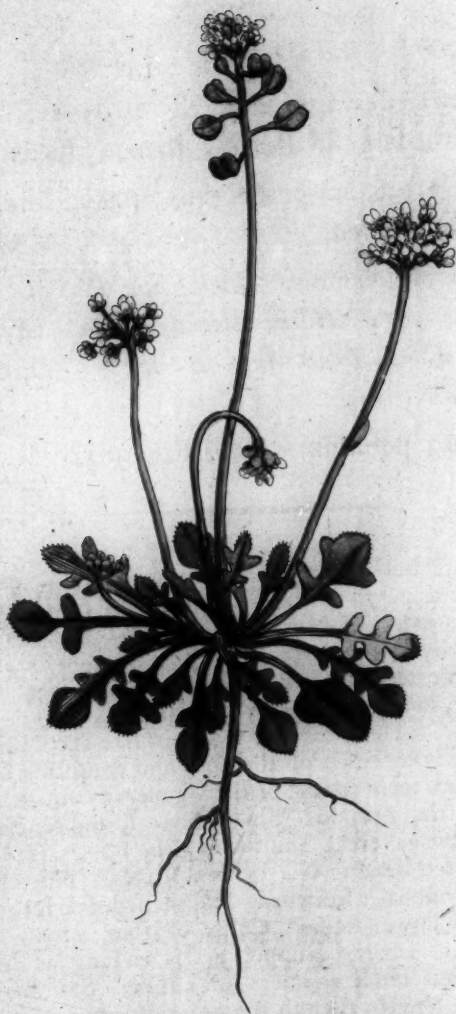
GRASS CHAIR. Leaves linear-lanceolate. Fruit glo-
bose. Seeds acute.

GRASS CHAIR. Leaves linear-lanceolate. Fruit glo-
bose. Seeds acute.

GRASS CHAIR. Leaves linear-lanceolate. Fruit glo-
bose. Seeds acute.

GROWS in swampy and low places, not very frequently.
Mr. J. Raper gathered it on the banks of the river, growing in
August.
Root perennial, of many long, thin, white, as in most species
the plants from the crown of which arise several upright,
narrow-lanceolate, smooth, entire leaves, on long very spongy
foot-stalks. Stalk mostly taller than the leaves, upright or de-
cumbent, round, smooth, bearing two or more whorls (often
proliferous) of flowers on long flower stalks, with small mem-
branous bracts at their insertion. Calyx-lobes small, round-
ish, concave, permanent. Petals rather large, of an elegant
pale purple, yellow at their base, expanding in the middle of
the day, slightly wavy. Stamens short. Ovaries very nu-
merous, collected into a small globe. Seeds with five angles,
not an acute point, forming a round belly head, by which
it may always be distinguished from every variety of A. Pila-
rea, the seeds of which are very blunt and compressed.





Ranunculus repens L. f. *repens* L. f. *repens* L. f.

IBERIS nudicaulis.

*Naked-stalked Candy-tuft.**TETRADYNAMIA Siliculosa.*

GEN. CHAR. *Cor.* irregular, the two external petals being the largest. *Pouch* with many seeds, notched.

SPEC. CHAR. Stem herbaceous, naked and simple. Leaves sinuated.

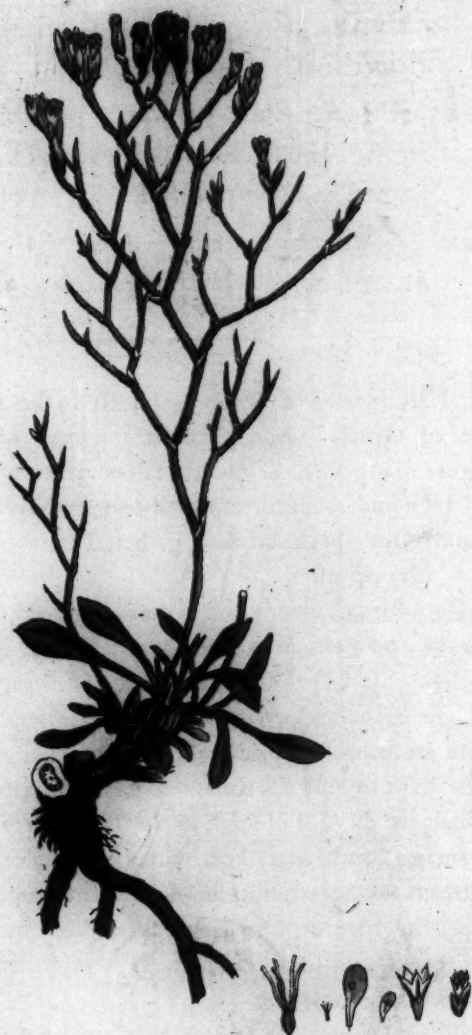
SYN. *Iberis nudicaulis.* *Linn. Sp. Pl.* 907. *Huds. Fl. An.* 285. *With. Bot. Arr.* 682. *Relb. Cant.* 249. *Curt. Lond. fasc.* 6. t. *Dicks. Hort. Sicc. fasc.* 1. 10.

Nasturtium petræum. *Raii Syn.* 303.

THERE are but two species of *Iberis* found in Britain, neither of them very common. The *amara* has been already figured in this work, plate 52. That now before us is found on a dry gravelly soil in several places about London, Norwich and Bury. We received it from W. Matthew, Esq. in flower, May 9th 1793, being quite a spring plant.

Root annual. Herb varying much in size according to the greater or less luxuriance of the soil, and consisting of several leaves of a lyrate form (a few of them generally entire), spreading flat upon the ground. Stalks several, unbranched; the central one always erect and naked, the others spreading or decumbent, often bearing one or two leaves. Flowers white, in a small corymbus, afterwards lengthened out into a spike, on compressed flower-stalks. Calyx of four equal, concave, purplish leaves. Inner or upper petals as long as the calyx; outer ones about twice as long; all entire. Stamina all very nearly equal in length, though the two outer ones, being more spreading, seem the shortest, all of them bearing, on their inner side, near the base, a very singular petal-like appendage, which authors have not much noticed. Pouch curved upwards, concave above, convex below.





STATICE reticulata.

*Matted Sea Lavender.**PENTANDRIA Pentagynia.*

GEN. CHAR. *Cal.* of one leaf, entire, plaited, filmy.
Petals five. *Seed* single.

SPEC. CHAR. Stalk panicled, prostrate; its branches zigzag, the barren ones bent back. Leaves wedge-shaped, a little pointed.

SYN. *Statice reticulata.* *Linn. Sp. Pl.* 394. *Huds. Fl. An.* 133. *With. Bot. Arr.* 327.

THIS species of *Statice* is hardly to be found in any other part of Great Britain than on the coast of Norfolk, where it covers many acres of muddy salt marshes with its blue flowers in July and August, especially about Wells, Cley and Holkham. Our specimen was gathered below Wisbeach, by the Rev. Mr. Hemsted.

Root strong, woody and perennial, bearing thick tufts of small, narrow, obovate, or wedge-shaped, leaves, slightly pointed, and entire. Stalks prostrate, destitute of leaves, very much branched, the branches zigzag, matted and entangled with each other, with an ovate, sharp, membranous bractea at each divarication. The bark in our specimens is a little crisped and tuberculated, which we do not observe in the Linnæan ones. Many of the branches are barren, and those often reflexed, but not always. Flowers few together in simple terminal spikes, erect, each enveloped in three or four larger sheathing bractææ. The ribs of the calyx, and the petals, are of a bright purplish blue, which turns white in drying.

There cannot be said to be a good figure of this plant extant. Plukenet's *t.* 42. *f.* 4. is most like *S. echioides*, and Boccone's *Sic. t.* 44. is too imperfect to be of any service.

STATICE reticulata.

Matched Sea Lavender.

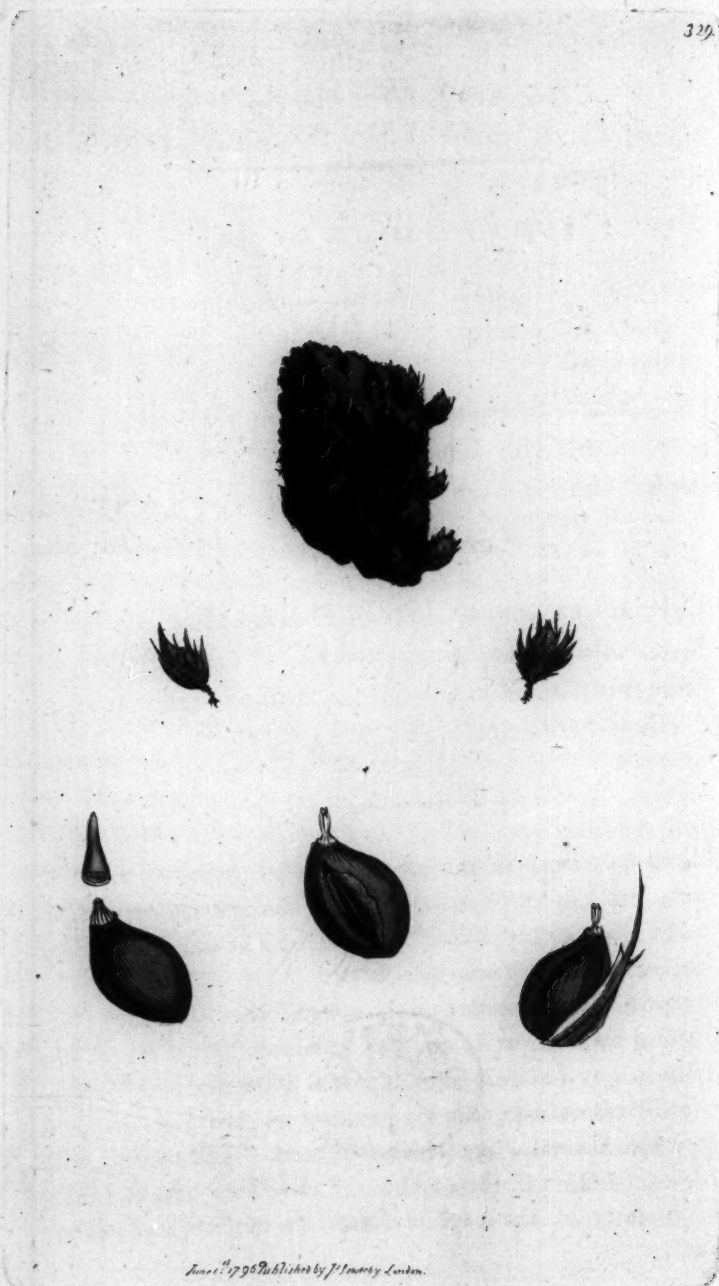
PENTLANDIA. Penzance.

GEN. CHAR. Cal. of one leaf entire, plaited, flimsy.
 Petals five. *Stachys*.
 SPEC. CHAR. Stem branched, prostrate; its branches
 zigzag, the barren ones bent back. Leaves wedge-
 shaped, a little pointed.
 SYN. Statice reticulata. Linn. Sp. Pl. 394. Flak.
 Fl. Am. 133. Webb. Bot. Am. 327.

THIS species of *Statice* is hardly to be found in any other
 part of Great Britain than on the coast of Norfolk, where it
 covers many acres of muddy salt marshes with its blue flowers
 in July and August, especially about Wells, Cley and Hol-
 ham. Our specimen was gathered below Walsingham, by the
 Rev. Mr. Hemsted.
 Root strong, woody and perennial, bearing thick tufts of small,
 narrow, obovate, or wedge-shaped, leaves, slightly pointed, and
 entire. Stalks prostrate, sessile, of leaves, very much branched,
 the branches zigzag, marked and entangled with each other,
 with an ovate, three-angled, slender, and branched at each division.
 The bark in our specimen is a little striped and tuberculated,
 which we do not observe in the *Littoralea* ones. Many of the
 branches are barren, and those others collected, but not always.
 Flowers few together in simple terminal spikes, erect, each enve-
 loped in three or four larger bristling bracts. The ribs of
 the calyx, and the petals, are of a bright purplish blue, which
 turns white in drying.

There cannot be said to be a good figure of this plant ex-
 tant. Plukenet's A. 43. f. 4. is most like *S. echinata*, and Boe-
 con's Sib. A. 44. is too imperfect to be of any service.





BUXBAUMIA foliosa.

Leafy Buxbaumia.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* oblique, membranous on one side, gibbous on the other, with a lid. *Veil* deciduous,

SPEC. CHAR. Stem none. *Capsule* nearly sessile, surrounded with leaves.

SYN. *Buxbaumia foliosa*. *Linn. Fil. Meth. Musc.* 33. t. 1. f. 4. *With. Bot. Arr.* v. 3. 77. *Dicks. H. Sicc. fasc.* 2. 20.

Phascum montanum. *Huds. Fl. An.* 466.

P. maximum: *Lightf. Scot.* 693.

Sphagnum acaulon maximum, foliis in centro ciliatibus. *Dill. Musc.* 253. t. 32. f. 13.

OUR specimens of this rare moss were gathered by T. F. Forster, jun. Esq. in September 1794, on the rocks near Ham-fil forge (commonly called Harrison's rocks), and on Eridge rocks, Suffex, near Tunbridge-Wells.

It grows in little patches on the upright stone, but each plant is separate from the rest, consisting of several erect leaves, the inner ones long-pointed, embracing a solitary nearly sessile capsule, which is oblique, the top pointing upwards; its orifice is ciliated with several white permanent teeth. Lid conical, with a little constriction in the middle. The veil we have not seen. The obliquity of the capsule forms its most obvious generic character.

BUXBAUMIA

Leafy Buxbaumia

CRYPTOGAMIA

GER. CHAR. Capsule oblique, membranous on one side, gibbous on the other, with a lid. Vex de- ciduous.

SPERM. CHAR. Stem none. Capsule nearly sessile, fur- rounded with leaves.

Syn. Buxbaumia foliolosa, L. f. Muhl. Mag. 33. t. 1.

f. 4. With Bot. 77. Dicks. H. 21.

fol. 2. 20.

Phacum montanum. Muhl. H. 21. 466.

P. maximum, Light. Bot. 693.

Sphagnum acantho maximum, folia in centro cilia-

ribus. Dill. Mag. 253. t. 32. f. 13.

OUR specimens of this rare moss were gathered by T. F. Worsley, Jan. 1840, in September 1840, on the rocks near Ham- in large (commonly called H. Worsley's rocks) and on bridge rocks, Sussex, near Tunbridge Wells. It grows in little patches on the upright stone, but each plant is separate from the rest, consisting of several erect leaves, the most ones long-pointed, embracing a solitary nearly sessile cap- sule, which is oblique, the top pointing upwards; its surface is clothed with several white prominent teeth. The capsule, which is a little constricted in the middle. The rest we have not seen. The obliquity of the capsule forms its most obvious generic character.



June 1, 1798. Published by J. Sowerby, London.

PHASCUM curvicollum.

Crooked Phascum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* with a lid, the mouth ciliated.
Veil minute, deciduous.

SPEC. CHAR. Stem none. Capsules on curved stalks.
Leaves ovato-lanceolate, acuminate, spreading.

SYN. *Phascum curvicollum*. *Dicks. Crypt. fasc. 2. 1.*
With. Bot. Arr. v. 3. 73. Relb. Cant. fasc. 3. 8.

GATHERED by the Rev. Mr. Hemsted on a dry bank near Newmarket; Mr. Dickson found it on barren grassy spots near Croydon. It ripens its fruit in April or May, and may probably be not uncommon, though so minute as to be rarely perceived.

Each plant is simple, with a fibrous root, a few lanceolate, entire, pointed, pellucid, spreading leaves, which vary in breadth, and from the centre of which arises a short, reddish, curved and recurved stalk, bearing a roundish capsule of the same colour. The lid ascends obliquely. The veil is more considerable and permanent than the generic character seems to require, nor can we discover any satisfactory reason why this plant should not be esteemed a *Bryum*, though for the present we leave it where the most accurate judges have placed it, at least till some more solid generic characters of mosses can be discovered.

PHASCOM curvicolium.

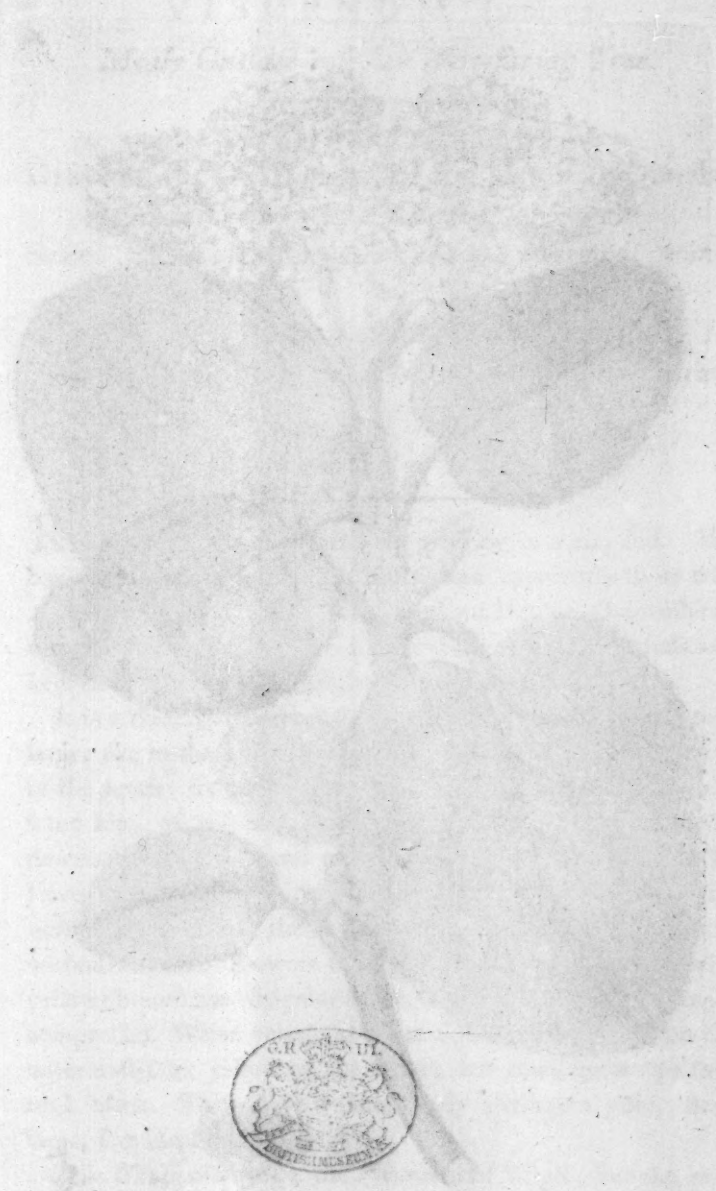
Crested Phascom.

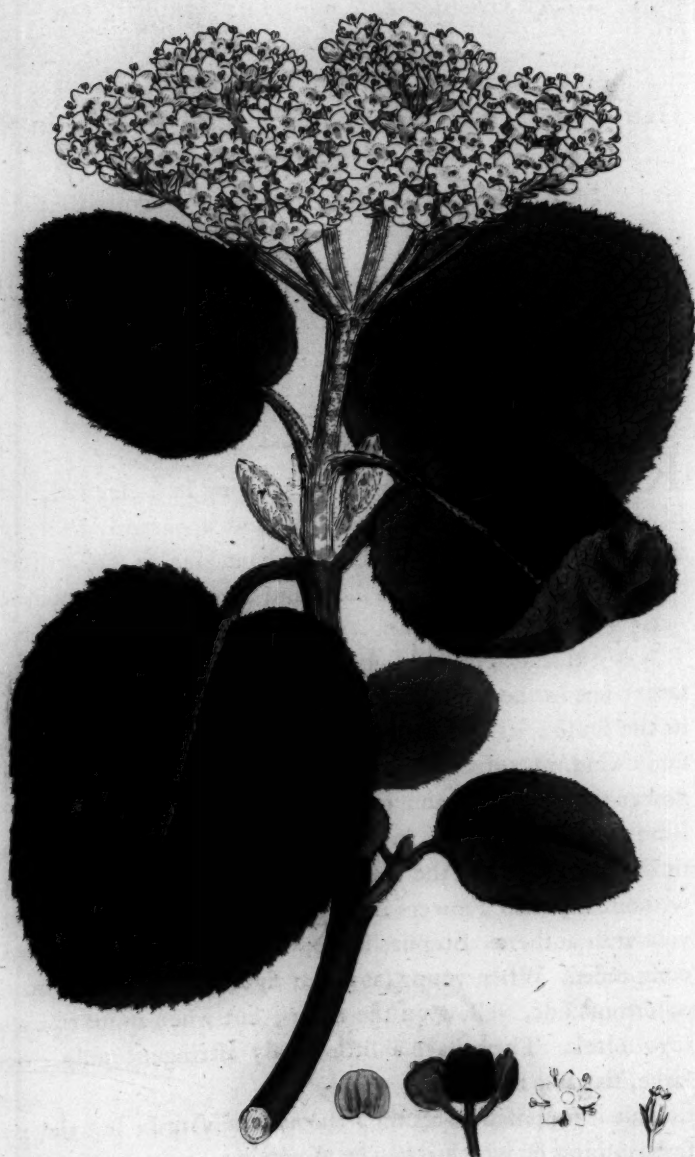
CRYPTOGAMIA Mss.

Gen. CHAR. Capsule with a lid, the mouth ciliated.
 Sp. CHAR. Stem none. Capsules on curved stalks.
 Leaves ovate-lanceolate, acuminate, spreading.
 Syn. Phascom curvicolium. Dick. Crypt. fasc. 2. 1.
 Web. Bot. fasc. 3. 73. Relb. Com. fasc. 3. 8.

GATHERED by the Rev. Mr. Hemsted on a dry bank
 near Newmarket; Mr. Dickson found it on barren grassy spots
 near Croxson. It ripens its fruit in April or May, and may
 probably be not uncommon, though so minute as to be rarely
 perceived.

Each plant is simple, with a fibrous root, a few lanceolate,
 entire, pointed, petioled, spreading leaves, which vary in
 breadth, and from the centre of which arises a short, reddish,
 curved and recurved stalk, bearing a roundish capsule of the
 same colour. The lid ascends obliquely. The veil is more
 considerable and permanent than the generic character seems to
 require, nor can we discover any satisfactory reason why this
 plant should not be esteemed a species, though for the present
 we leave it where the most accurate judges have placed it, as
 least till some more solid generic characters of mosses can be dis-
 covered.





Hydrangea paniculata (L.) S. & P. var. *paniculata* (L.) S. & P.

VIBURNUM Lantana.

Mealy Guelder-rose, or Way-faring Tree.

PENTANDRIA Trigynia.

GEN. CHAR. *Cal.* superior, of five leaves. *Cor.* in five segments. *Berry* with one seed.

SPEC. CHAR. Leaves heart-shaped, serrated, veiny, downy beneath.

SYN. *Viburnum Lantana.* *Linm. Sp. Pl.* 384. *Huds. Fl. An.* 129. *With. Bot. Arr.* 318. *Relb. Cant.* 126. *Sibth. Ox.* 104.*Viburnum.* *Raii Syn.* 460.

RAY mentions this shrub as growing in a clay soil. We have observed it most plentifully, and apparently in its true wild situation, in chalky places, as about Henley, Oxfordshire; not but that it occurs also here and there in the woods and hedges of most parts of England, flowering in May.

It is a thickly-branched shrub or small tree, growing to a larger size in the north of England (as Ray also remarks) than in the south; its twigs round, pliant, and mealy, with the same kind of tufted stellated pubescence as is found on the flower-stalks, backs, and even upper sides of the leaves. The leaves are opposite, as in the whole genus, somewhat elliptical, heart-shaped at the base, obtuse, serrated, strongly veined, without stipulæ. Flowers in large terminal cymes, white, with yellowish antheræ. Stigmas sessile, very short and thick. Berries compressed. When young (as in our figure) they are red on the outermost side, yellow on the other; but when quite ripe they turn black. They have a little mealy astringent pulp. Seed large, flat and furrowed.

This is supposed to be the *Viburnum* of Virgil; but the poet says nothing by which it can be ascertained, mentioning it only in his 1st eclogue, ver. 26.

The leaves turn dark red in autumn.

VIBURNUM Lantana.

Mealy Ginkher-rols, or Wey-faring Tree.

PENTANDRIA Tricoma.

Gen. CHAR. Cal. inferior of five leaves Cor. in five segments. Berry with one seed.

Spec. CHAR. Leaves heart-shaped, serrated, veiny, downy beneath.

Stem. Viburnum Lantana. Linn. Sp. Pl. 324. Hook. II.

Aut. 1801. Wals. Bot. Brit. 318. Robt. Carr. 186.

Stem. Oct. 1801.

Viburnum. Wals. Bot. 318.

RAY mentions this shrub as growing in a clay soil. We have observed it most plentifully, and apparently in its true wild situation, in chalky places, as about Henley, Oxfordshire; not that it occurs also here and there in the woods and hedges of most parts of England, flowering in May.

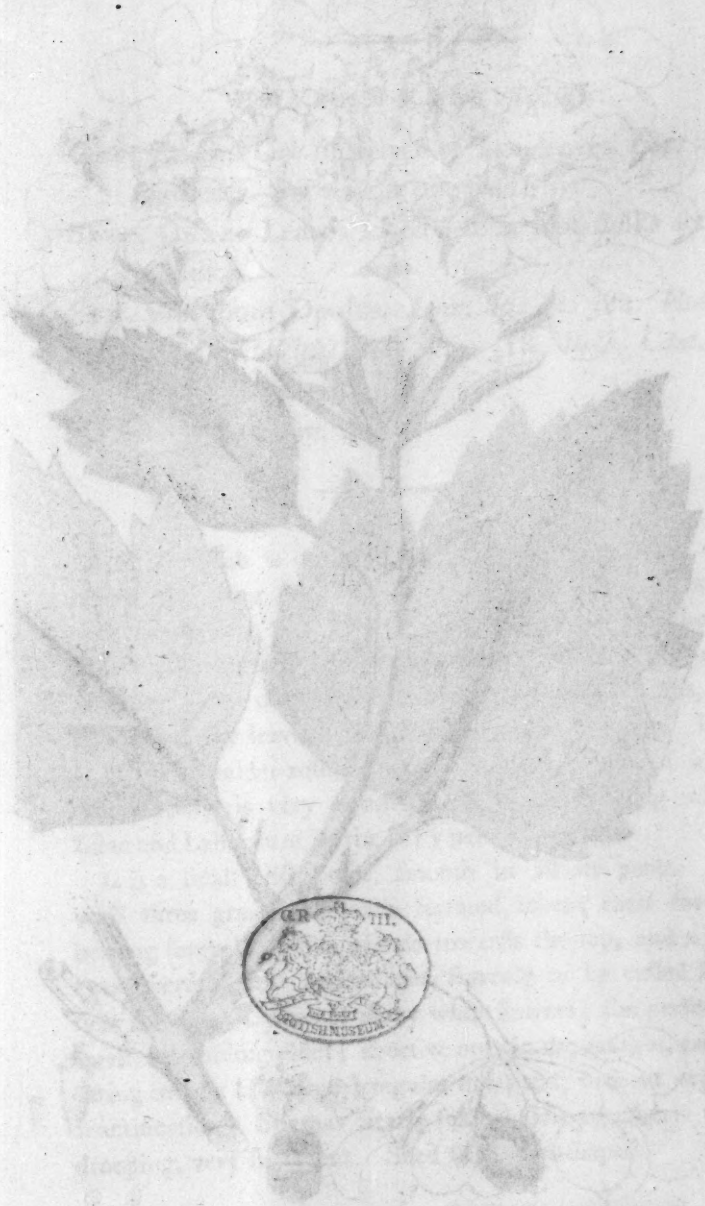
It is a thick, branched shrub or small tree, growing to a larger size in the north of England (see Ray's description) than in the south; its twigs round, hard, and woody, with the same kind of rusted reticulated pubescence as is found on the flower-stalks, buds, and even upper sides of the leaves. The leaves are opposite, as in the whole genus, somewhat elliptical, heart-shaped at the base, obtuse, serrated, strongly veined, without stipules. Flowers in large terminal cymes, white, with yellowish anthers. Stigmas sessile, very short and thick. Berries compressed. When young (as in our figure) they are red on the outermost side, yellow on the other; but when quite ripe they turn black. They have a hide mealy alluring pulp. Seeds large, flat and flattened.

This is supposed to be the Viburnum of Virgil; but the poet says nothing by which it can be ascertained, mentioning it only in his 1st eclogue, ver. 26.
The leaves turn dark red in autumn.

[11]

VIBURNUM OPUL.

Common Dogwood - *Viburnum Opulus* L.





Julia 1875. The artist by J. Townsend.

VIBURNUM Opulus.

*Common Guelder-rose, or Water Elder.**PENTANDRIA Trigynia.*

GEN. CHAR. *Cal.* superior, of five leaves. *Cor.* in five segments. *Berry* with one seed.

SPEC. CHAR. Leaves lobed; their foot-stalks set with glands.

SYN. *Viburnum Opulus.* *Linn. Sp. Pl.* 384. *Huds. Fl.*

An. 130. *With. Bot. Arr.* 318. *Relb. Cant.* 127.

Sibth. Ox. 104.

Opulus. Raii Syn. 460.

THIS shrub is common in woods and hedges in watery places, flowering early in June; the bright-red berries ripen about September, and towards the middle of October the leaves assume a beautiful pink-colour, affording another instance, in addition to that of the Cornel (see tab. 249), of a genus, mostly American, the leaves of which turn red in autumn. In gardens the Guelder-rose, bearing round bunches of abortive flowers only, is very common, elegantly grouping with the Lilac and Laburnum in the early part of summer.

It is a small bushy tree, smooth in all its parts. Leaves with three great, unequally serrated, lobes; their foot-stalks bearing several cup-like glands towards the top, and a pair or two of erect linear appendages, scarcely to be called stipulæ, near the base. Cymes of many white flowers; the perfect ones small, resembling elder; abortive ones in the margin, each consisting merely of a large irregular flat petal, without organs of fructification. Stigmas nearly sessile, close together. Berries drooping, very succulent. Seed flat, heart-shaped.

VIBURNUM Opulus.

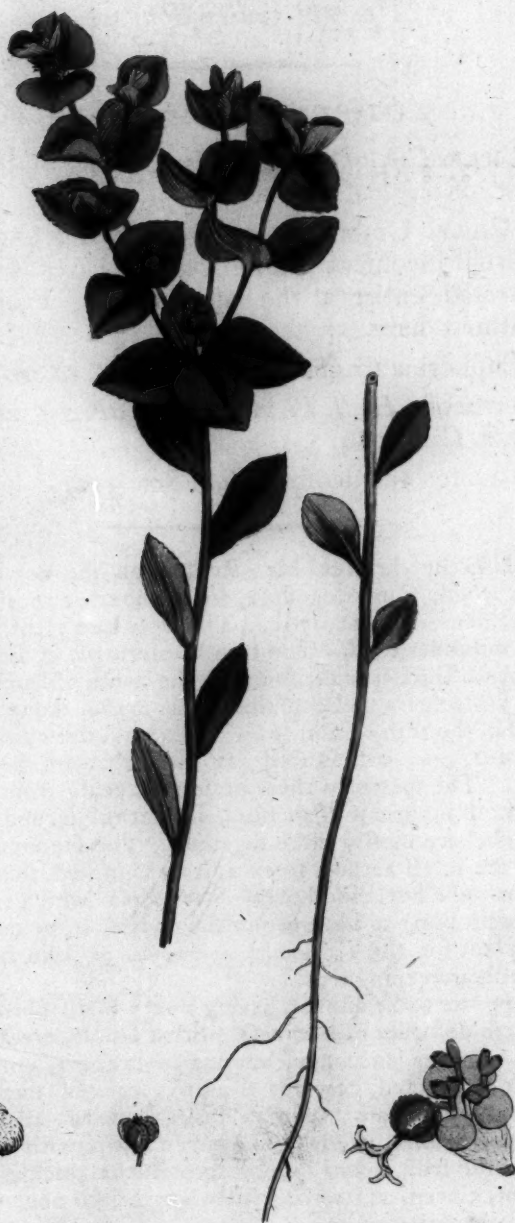
Common Guelder-rose, or Water Elder.

PENTANDRIA Trigyna

GEN. CHAR. Cal. superior, of five leaves. Cor. in five
 segments. Berry with one seed.
 SPEC. CHAR. Leaves lobed, their foot-stalks set with
 glands.
 SYN. Viburnum Opulus. Lam. Sp. Pl. 384. Hook. Fl.
 Brit. 130. Willd. Bot. Berol. 318. Rehb. Com. 107.
 Salm. Ox. 107.
 Opulus. Rauh Syn. 403.

THIS shrub is common in woods and hedges in watery
 places, flowering early in June, the unopened berries ripen
 soon. September, and towards the middle of October the leaves
 assume a beautiful pink colour, showing a rather singular in-
 addition to that of the Corolla (see tab. 220) of a green, mostly
 horizontal, the leaves of which turn red in autumn. In gar-
 dens the Guelder-rose, bearing round bunches of abortive
 flowers only, is very common, especially growing with the
 Lilac and Laburnum in the early part of summer.
 It is a small bushy tree, growing in all its parts. Leaves
 with three green, unequally parted, lobes; their foot-stalks
 bearing several cup-like glands towards the top, and a pair or
 two of erect linear appendages, scarcely to be called stipules,
 near the base. Clusters of many white flowers; the perfect ones
 small, resembling elms; abortive ones in the margin, each con-
 sisting merely of a large irregular flat petal, without organs of
 fructification. Stipules nearly sessile, close together. Berries
 drooping, very succulent. Seed flat, heart-shaped.





July 1790 Published by J. Sowerby London.

EUPHORBIA stricta.

*Upright warty Spurge.**DODECANDRIA Trigynia.*

GEN. CHAR. Cor. of 3 or 4 petals, standing on the calyx.

Cal. of one leaf, inflated. Caps. 3-lobed.

SPEC. CHAR. Umbel of 4 or 5 rays, 3-cleft and cloven.

Partial involucra nearly ovate. Leaves lanceolate, ferrated, entire at the base, smooth. Fruit warty, without hairs.

SYN. Euphorbia stricta. Linn. *Syst. Nat. ed.* 10. 1049.E. verrucosa. *Huds. Fl. An.* 209. *With. Bot. Arr.* 497.
Relb. Cant. 186.Tithymalus verrucosus. *Raii Syn.* 312.

FOUND by the Rev. Mr. Relhan on the north side of Everden wood, Cambridgeshire, from whom we received fresh wild specimens Aug. 10, 1795. This very rare plant has been hitherto misunderstood. The true *E. verrucosa* of Linnæus is a perfectly distinct species, found in the south of Europe, with very hairy involucra and capsules. His *stricta*, though so well described in the 10th edition of *Syst. Nat.* was afterwards omitted by Linnæus, and confounded (as his herbarium shews) with *verrucosa*. The specimen there preserved, being from the Levant, is more luxuriant than ours, so that the second divisions of the umbel are mostly three together. The synonyms of the *verrucosa* are in all authors so excessively confused, that we can answer for none but the above. Ray seems (which is seldom the case with him) to have begun the confusion, by taking this English plant for the *Tithymalus verrucosus* of John Bauhin, a species with a creeping root.

Ours appears to be annual, having a very small fibrous root. Whole herb destitute of hairiness. Stem simple, erect, round, purplish. Leaves lanceolate, varying in breadth, entire, and somewhat contracted, towards the base, ferrated above. General involucra ovate; partial heart-shaped; all ferrated. Petals round, entire, yellow. Germen clothed with tubercles, which as the fruit ripens become prominent prickles. Styles permanent, cloven, united half their length into one.

EUPHORBIA fruticosa

Upright country Spongers

PODECEANBIA fruticosa

Gen. CHAR. Cor. of 3 or 4 petals, standing on the calyx.
 Cal. of one leaf, situated. Cor. 3-lobed.
 Seed. CHAR. Umbel or a few rays, 3-lobed and cloven.
 Partial involucre nearly ovate. Leaves lanceolate,
 serrated, entire at the base, smooth. Fruit winged,
 without hairs.
 Spec. Euphorbia fruticosa. Linn. Sp. Pl. ed. 10. 1049.
 E. venusta. Hook. Fl. Bor. Art. 437.
 Rell. Char. 86.
 Tephrosia fruticosa. Rell. Syn. 314.

FOUND by the Rev. Mr. Rell. on the north side of
 Exeter wood, Cambridge, from whom we received their
 wild specimens Aug. 10. 1792. This very rare plant has been
 hitherto unobserved. The true E. venusta of Linnæus is
 a perfectly distinct species, found in the south of Europe, with
 very many involucres and capules. His first, though so well
 described in the 10th edition of Sp. Pl. was afterwards omitted
 by Linnæus, and accompanied as his *herbarium* (show) with
 involucres. The specimen that reached being from the E.
 venusta is more luxuriant than ours, so that the second division
 of the umbel are mostly three together. The synonymy of the
 various are in all authors is extremely confused, that we can
 answer for none but the above. Ray seems (which is seldom
 the case with him) to have begun the confusion by taking this
 English plant for the *Tephrosia venusta* of John Baskin, a
 species with a winged root.
 Ours appears to be annual, having a very small fibrous root.
 Whole herb delicate of herbaceous. Stem simple, erect, round,
 purplish. Leaves lanceolate, serrated in divided edges, and
 somewhat contracted towards the base, serrated above. Co-
 rolla involucrate; petals five, small, white, all pointed.
 Petals round, entire, yellow. Germen twisted with distinct
 which as the fruit grows become prominent prickles. Style
 permanent, cloven, united half their length into one.





July 1. 1796 Published by J. Sowerby London.

VICIA *fativa*.*Common Vetch.*

DIADELPHIA *Decandria*.

GEN. CHAR. *Stigma* transversely bearded on the lower side.

SPEC. CHAR. Pods sessile, nearly upright, generally in pairs. Lower leaves blunt. Stipulæ marked with a discoloured depression on the under side.

SYN. *Vicia fativa*. Linn. *Sp. Pl.* 1037. Hudf. *Fl. An.* 318. With. *Bot. Arr.* 776. Relb. *Cant.* 274. Sibth. *Ox.* 224.

Vicia. Raii Syn. 320.

THIS is a wild specimen of the common *Vicia fativa*, so called because it is cultivated as an early fodder for cattle in various parts of Europe, and the seeds are the food of pigeons. It varies much in size, and in the form as well as breadth of the leaves, which are sometimes inversely heart-shaped, sometimes (at least the upper ones) of an elliptic-lanceolate form. It is easily known by the depressed mark on the stipulæ, which looks as if made with a hot iron, and varies in colour from black to brown, and even yellow. The root is annual. Stems weak, procumbent if the tendrils meet with nothing to cling to for support, angular and furrowed, as are also the common foot-stalks of the leaves. Flowers in shades of elegant purple. The pods are more generally horizontal than erect.

Mr. Hudson's variety β of his *V. lathyroides* is generally agreed to be a variety of the *fativa*. Its pods are erect, black, cylindrical—the flowers deep red. We have received it from Weymouth by favour of Sir Thomas Cullum. The α of *V. lathyroides* Hudf. seems to be the more common variety of *fativa* mentioned in Withering; but their synonyms are not very easily to be ascertained.

DIAPYCNIS Dactylis.

Gen. CHAR. Dactylis lativa, densely bearded on the lower side.

SPEC. CHAR. Pods lativa, nearly upright, generally in pairs. Lower leaves blunt. Stems marked with a rhomboidal depression on the under side.

STY. VICIA lativa. Lam. & M. 1037. Thell. Fl. Alp.

318. Willd. Bot. Alp. Fl. Alp. Cant. 272. 280.

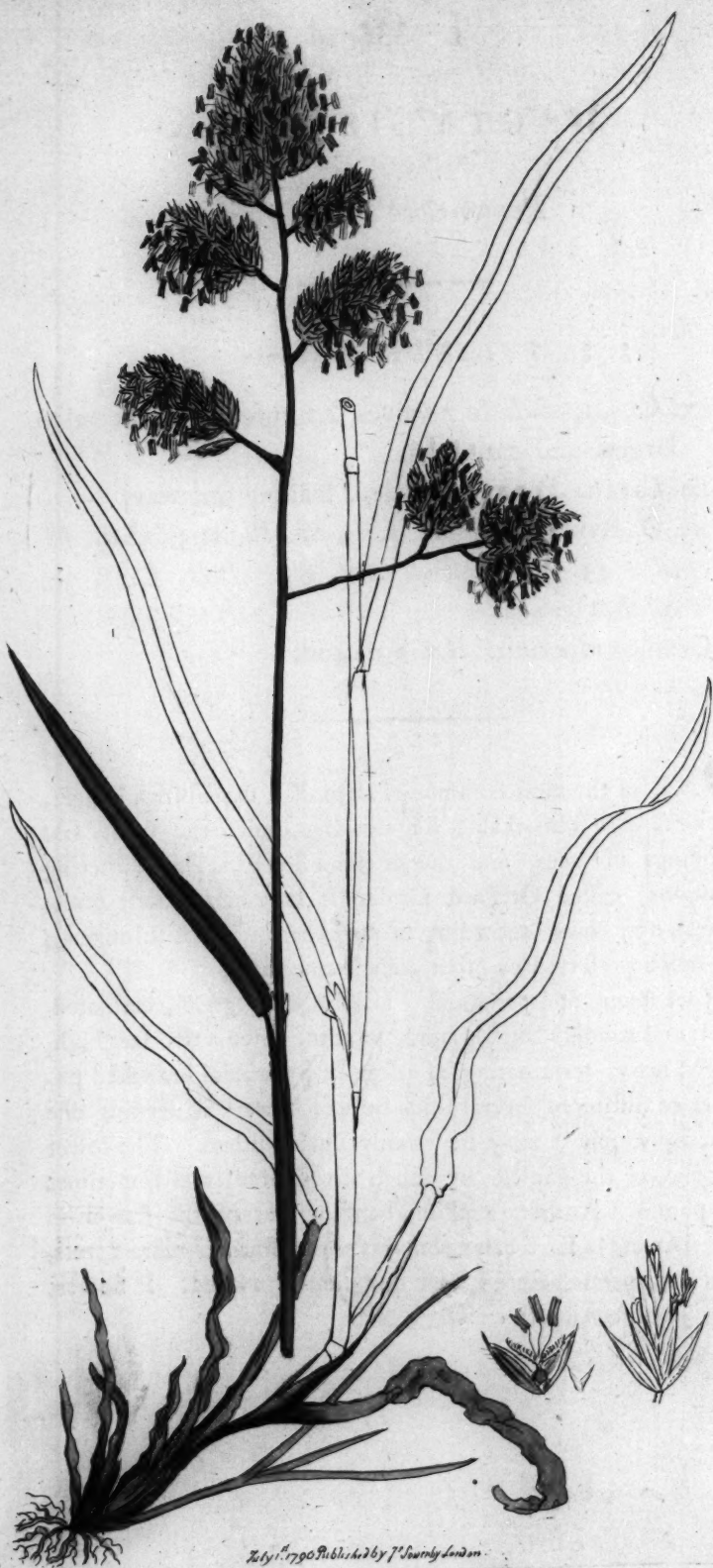
On 174.

Vicia. Lam. Alp. 320.

THIS is a well specimen of the common Vicia lativa, so called because it is cultivated as an early fodder for cattle in various parts of Europe, and the seeds are the food of pigeons. It varies much in size, and in the form as well as in the shape of the leaves, which are sometimes inversely heart-shaped, sometimes (at least the upper ones) of an elliptic-lanceolate form. It is easily known by the bearded nature of the stems, which looks as if made with short hairs, and raised in colour from black to brown, and even yellow. The root is small. Stems weak, prostrate if the tendril root with nothing to cling to for support, angular and furrowed, as are all the common foot-stalks of the leaves. Flowers in heads of elegant purple. The pods are more generally horizontal than erect.

Mr. Hudson's variety 2 of his V. lativa is generally agreed to be a variety of the above. Its pods are erect, thick, cylindrical—the lower ones being flattened. We have received it from Weymouth by the care of Mr. Thomas Cullen. The whole V. lativa seems to be the more common variety of the above mentioned in Withering; but their synonymy are not very easily to be ascertained.





DACTYLIS glomerata.

Rough Cock's-foot Grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, compressed; one valve larger, and carinated.

SPEC. CHAR. Panicle crowded, leaning one way.

SYN. *Dactylis glomerata.* *Linn. Sp. Pl.* 105. *Huds. Fl.*

An. 43. *With. Bot. Arr.* 94. *Relb. Cant.* 39.

Sibth. Ox. 43.

Gramen asperum. *Raii Syn.* 400.

ONE of the most common of all grasses, in pastures, hedges, thickets, &c. remarkable for thriving under the shade and drippings of trees, and thence sometimes (as Dr. Withering mentions) called Orchard Grass. It is a harsh coarse grass, not eaten by cows (according to the experiments of Linnæus), nor much preferred by other domestic animals.

Root strong and perennial. Leaves dark green, carinated, harsh and rough. Stipula bifid, or torn. Stems two feet high, rough, leafy, terminating in a sort of pyramidal branched panicle, consisting of several thick tufts of flowers all leaning one way, by which it may be readily distinguished. The lower branches of the panicle are much divaricated, and sometimes compound. Antheræ reddish, hanging out of the flower on long filaments. Each calyx contains three, four, or more florets, with both petals pointed, and one shortly awned. It flowers from June to August.

DACTYLIS glomerata.

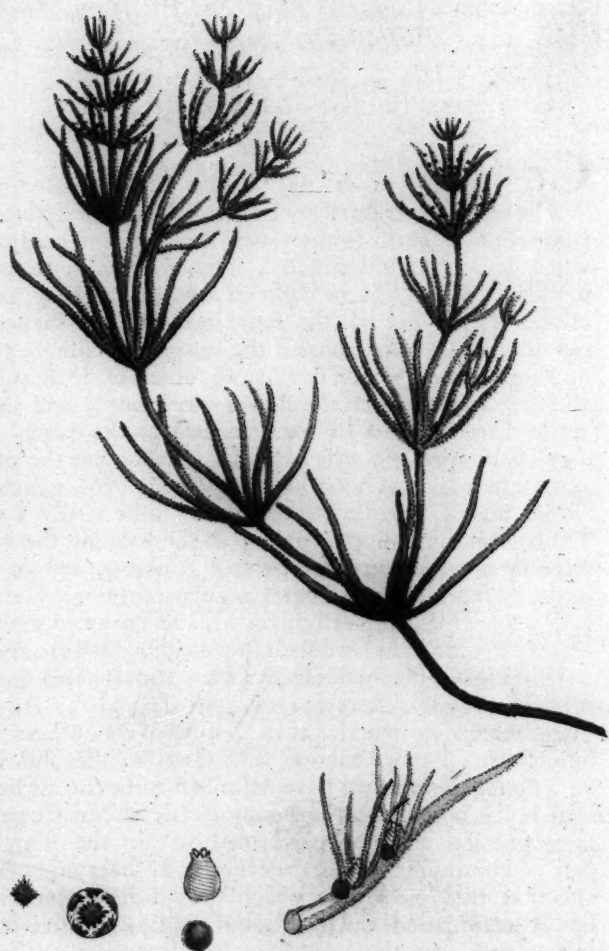
Rough Cock's-foot Grass.

TRINARIA Dactylis.

Gen. CHAR. Cal. of 2 valves, compressed; one valve larger and carinated.
Spec. CHAR. Panicle crowded, leaning one way.
Syn. *Dactylis glomerata* Lam. Sp. Pl. 105. Herb. Et.
An. 43. Herb. Brit. 94. Rabb. Cant. 30.
Ship. Or. 47.
Germ. *glomerata*. Herb. Gr. 200.

ONE of the most common of all grasses in pastures, hedgerows, &c. remarkable for thriving under the shade and clippings of trees, and frequent sometimes (as Dr. Withering mentions) called Orchard Grass. It is a harsh coarse grass, not eaten by cows (according to the experiments of Linnæus), nor much preferred by other domestic animals.
Root strong and perennial. Leaves dark green, carinated, harsh and rough. Spikes stiff, setaceous, sometimes two-leaved, rough, leafy, terminating in a sort of pyramidal branched pedicel, consisting of several thick tufts of flowers all leaning one way, by which it may be readily distinguished. The lower branches of the panicle are much diversified, and sometimes compound. Anthers reddish, hanging out of the flower on long filaments. Each calyx contains three, four, or more flowers with both petals pointed, and one shortly swayed. It flowers from June to August.





1796 *Callitriche latifolia* L.

C H A R A vulgaris.

*Common Chara.**MONANDRIA Monogynia.*

GEN. CHAR. *Cal.* none. *Cor.* none. *Anthera* sessile. *Style* none. *Berry* with many seeds.

SPEC. CHAR. Stem and leaves rough, striated, without prickles. Leaves and leaflets tapering, channelled above, not jointed.

SYN. *Chara vulgaris*. *Linn. Sp. Pl.* 1624. *Huds. Fl. An.* 397. *With. Bot. Arr.* 1015. *Relb. Cant.* 345. *Sibth. Ox.* 1. *Gærtn. Sem. v.* 2. t. 84.

C. vulgaris foetida. *Raii Syn.* 132.

COMMON in muddy stagnant ditches, flowering in July.

The root is presumed to be annual. The herb floats under water, and is harsh to the touch, foetid; very brittle and gritty when dry. Stems branched, striated, rough, but destitute of prickles. Leaves six or eight in a whorl, as long as the joints of the stem, and of the same texture, awl-shaped, narrow, pointed, channelled above; the lower ones simple; the others bearing on their upper sides rows of erect leaflets, four in a cluster, among which the flowers are placed, and these leaflets are by Linnæus and Jussieu described as the calyx. The analogy of *Hippuris*, to which (as Dr. Stokes and the most intelligent systematic writers have observed) this genus is nearly allied, makes us conceive the flower to be really a naked one. The anthera is solitary, sitting at the base of the germen (or sometimes unaccompanied by any germen), red or yellowish, in decay cracking into several angular portions. Germen ovate, yellow or whitish, spirally striated, and crowned with five little leaves. Fruit with a hard shell. Seeds imbedded in a reddish pulp.

It will easily be perceived how naturally this genus comes into *Monandria Monogynia* next to *Hippuris*. As it flowers under water, no wonder if the nature of its anthera and pollen be obscure; but we cannot with Gærtner (see his preface, p. 33.) doubt the part we have described to be the anthera.

It is the opinion of our ingenious friend Mr. Correa, that the impregnation may be performed within the stem by a clandestine communication between the anthera and germen, and also that the five leaves which crown the germen are not (as has been supposed) the stigma, but the tips of a five-leaved calyx closely enfolding that part in a spiral manner. This merits a farther enquiry.

C H A R A

Cannon Opera.

MONDAY, MAY 11, 1903

Gen. CHAR. E. BOND, Col. 100th Inf., 2d Div.

name. Boys with many friends.

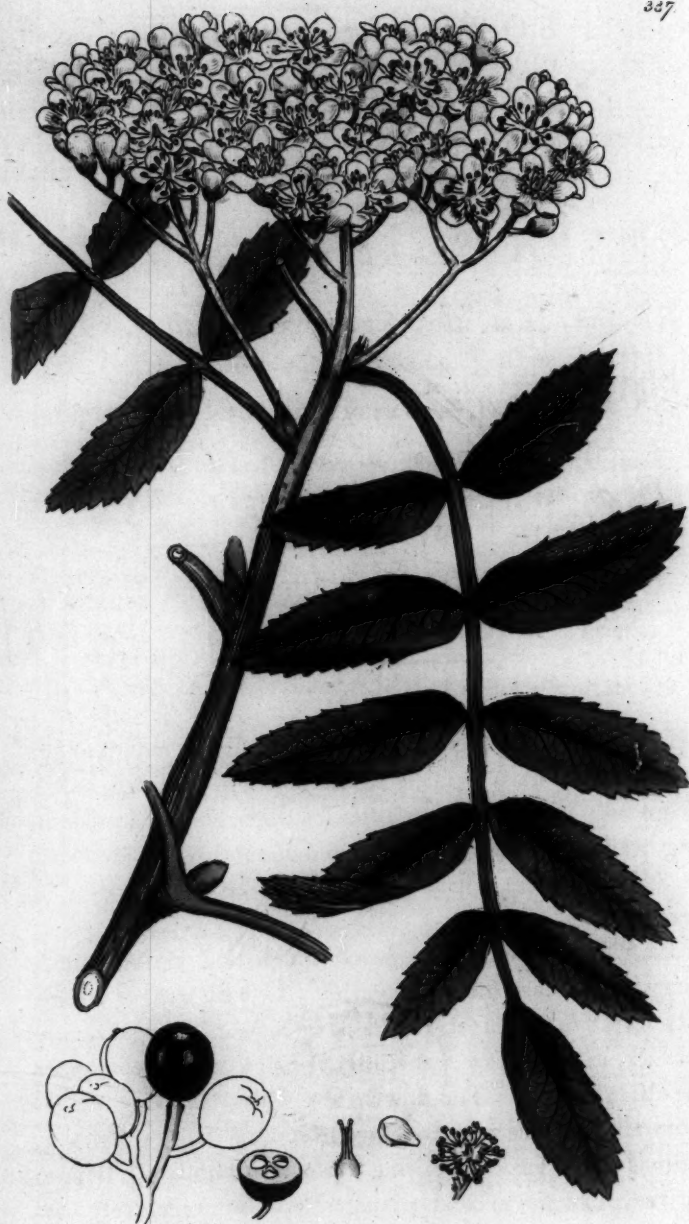
Spec. Char. Stem and leaves rough, fibrated, without

prickles, leaves and leaflets tapering, channelled

above, not jointed.

345. *Illeg. Bot. Americae. Bell. Cant. 345.*

Supp. On. 1. (Continued) Page 7 of 8



Aug. 1. 1706 Published by P. Swinley London.

SORBUS aucuparia.

Mountain Ash, or Quicken Tree.

ICOSANDRIA Trigynia.

GEN. CHAR. *Cal.* in 5 segments. *Petals* 5. *Berry* inferior, with 3 seeds.

SPEC. CHAR. Leaves pinnated, smooth on both sides.

SYN. *Sorbus aucuparia.* *Linn. Sp. Pl.* 683. *Huds. Fl. An.* 215. *With. Bot. Arr.* 513. *Relb. Cant.* 190.

S. sylvestris, foliis domesticæ similis. *Raii Syn.* 452.

THIS elegant tree grows very abundantly in mountainous (not alpine) woods, especially in the northern counties, and is now indeed pretty generally dispersed through the kingdom, having been so very frequently planted about houses for ornament. The flowers appear in May, and the berries ripen in September.

It is of slow growth; the wood tough and close-grained, not very hard; bark smooth, greyish. Leaves winged; their leaflets serrated, entire at the base, smooth above, and nearly so beneath, except a few fine scattered hairs, and their under side is also glaucous. The flowers are white, in large terminal corymbi. Petals very concave. Germen hairy; styles 3, sometimes 4, the seeds answering to them in number. Berries bright red, very juicy, acid astringent and bitter, scarcely eatable when raw, though a not unpleasant jelly is prepared from them in the Highlands with sugar.

SORBUS aucuparia.

Mountain Ash, or Spindle Tree.

SCOTLAND: Inverness.

Great CHAR. Cal. in 3 segments. Petals 5. Br. inferior with 3 teeth.

Great CHAR. Leaves serrated, smooth on both sides.
 Great CHAR. Leaves serrated, smooth on both sides.
 Great CHAR. Leaves serrated, smooth on both sides.
 Great CHAR. Leaves serrated, smooth on both sides.
 Great CHAR. Leaves serrated, smooth on both sides.

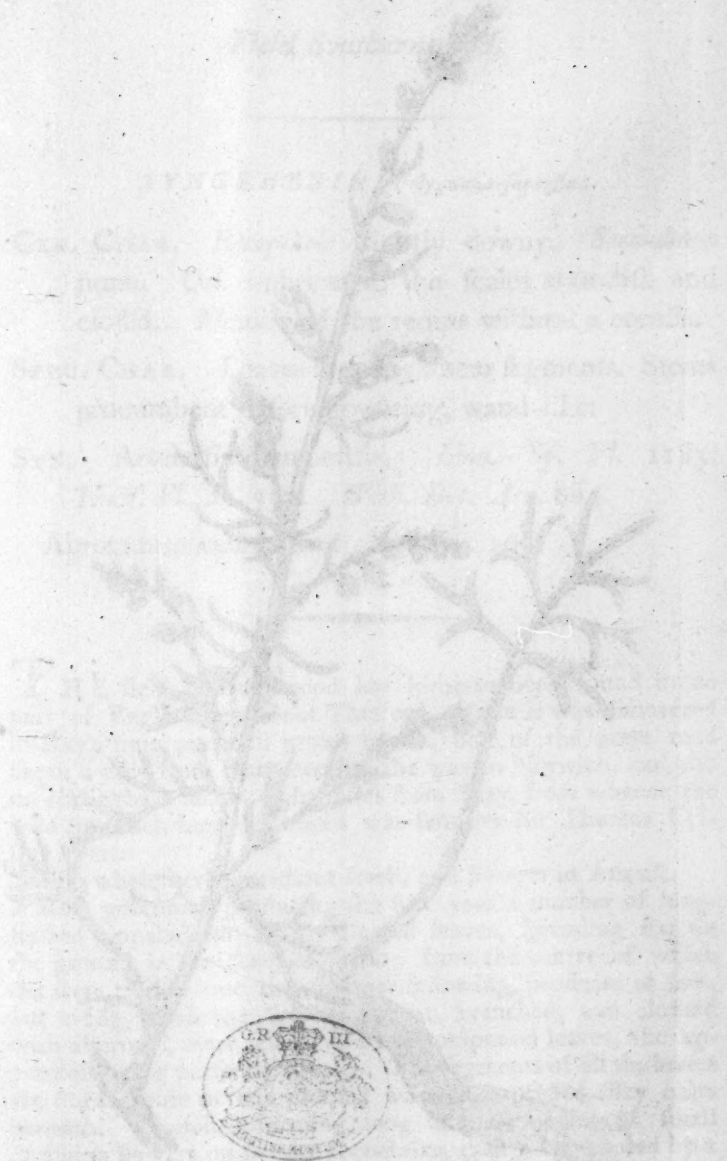
THIS elegant tree grows very abundantly in mountainous (not alpine) woods, especially in the northern counties, and is now indeed very generally observed through the kingdom, having been so very frequently planted about houses for ornament. This flower appears in May, and the berries ripen in September.
 It is of slow growth; the wood tough and close-grained, not very hard, but smooth, greyish. Leaves winged, thick, serrated, entire as the base, smooth above, and nearly to beneath, except a few fine feathered hairs, and their under-sides are also glaucous. The flowers are white, in large terminal corymbose. Berries very concave. German berries; Hales is sometimes of the seeds answering to them in number. Berries bright red, very juicy, acid, stringent and bitter, scarcely eaten when raw, though a not unpleasant jelly is prepared from them in the Highlands with sugar.

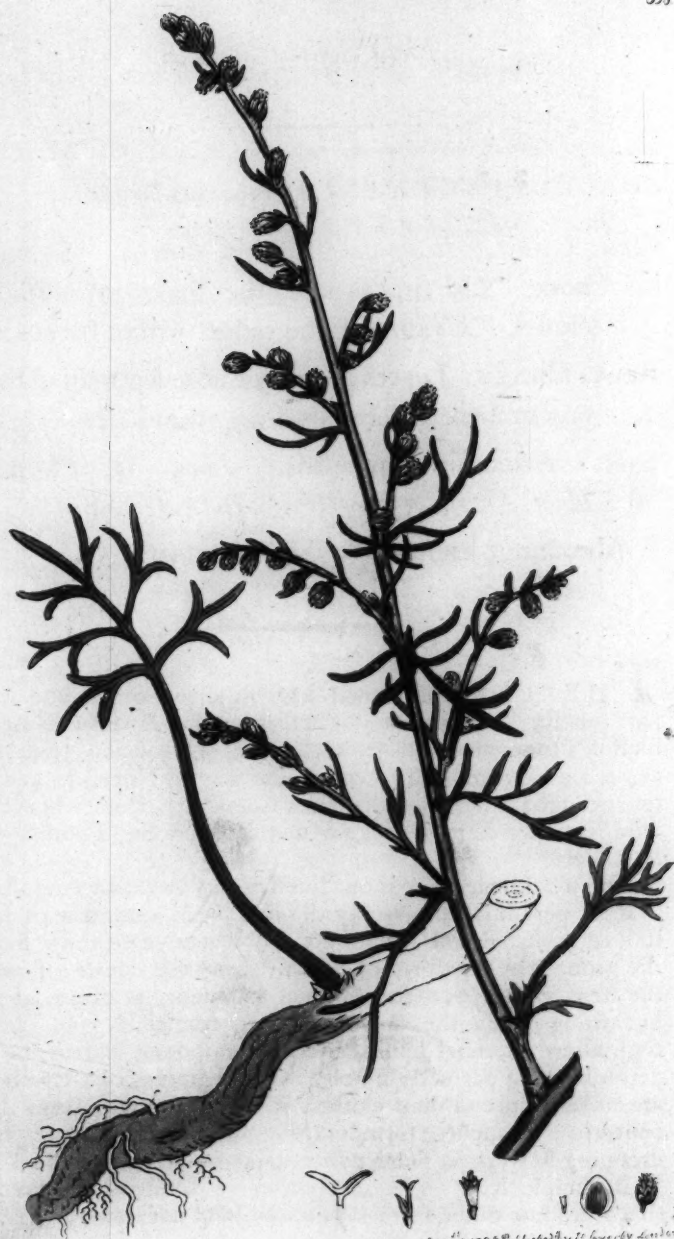
ARTICHOKE

Helianthus tuberosus

SYNGENESIS

Clas. Clas. ...
Sede. Clas. ...
Sede. Clas. ...
Sede. Clas. ...
Sede. Clas. ...





Root of the Wood Peckers of the Lower of London

ARTEMISIA campestris.

Field Southernwood.

SYNGENESIA *Polygamia-superflua.*

GEN. CHAR. *Receptacle* slightly downy. *Seed-down* none. *Cal.* imbricated, the scales roundish and closed. *Flowers* of the radius without a corolla.

SPEC. CHAR. Leaves in many linear segments. Stems procumbent before flowering, wand-like.

SYN. *Artemisia campestris.* *Lin. Sp. Pl.* 1185;
Huds. Fl. An. 357. *With. Bot. Arr.* 889.

Abrotanum campestre. *Raii Syn.* 190.

THE field southernwood has hitherto been found in no part of England but about Thetford, where it was discovered in Ray's time, and still grows by the side of the great road about a mile from that town in the way to Norwich, and also on Icklingham heath, eight miles from Bury, from whence the wild specimen here delineated was sent by Sir Thomas Cul-lum, Bart.

The whole herb is without smell, and flowers in August.

Root perennial, producing the first year a number of long-stalked pinnated and deeply divided leaves, spreading flat on the ground in the form of a star; from the centre of which the stem comes out the summer following, prostrate at first, but rising when the flowers appear, branched, and clothed with alternate, more sessile, and less compound leaves, the uppermost being perfectly simple. The segments of all the leaves are linear, more or less clothed with close-pressed silky hairs beneath. Branches forming long simple racemes of small drooping flowers on slender foot-stalks, each accompanied by a small simple leaf. The receptacle, as Linnæus observes, in this and some other species, is naked, and not downy.

ARTEMISIA campestris

Field Scentabwood

SYNOPSIS. Perennial herb.

Gen. Char. Herbage finely downy. Stems downy. none. Cal. indicated, the lobes rounded and closed. Flowers of the radius without a corolla. Spec. Char. Leaves in many linear segments. Stems procumbent before flowering, wand-like. Syn. Artemisia campestris. Ann. Bot. IV. 1182. Thunb. IV. 237. Willd. Bot. 889. Abundant in the field. 1800.

THE field Scentabwood has hitherto been found in no part of England but about Bedford, where it was discovered in Ray's time, and still grows by the side of the great road about a mile from that town in the way to Northwell, and also on a hillside near the village of Northwell, from whence the wild specimen here described was sent by Mr. Thomas Cul-
The whole herb is without smell, and flowers in August.
Root perennial, producing the first year a number of long-
stalked pinnated and deeply divided leaves, spreading flat on the ground in the form of a star; from the centre of which the stem comes out, the leaves following, prostrate at first, but rising when the leaves are more abundant, and clothed with alternate, more linear, and less compound leaves, the up-
permost being perfectly linear. The segments of all the leaves are linear, more or less clothed with close-pressed silky hairs beneath. Branches forming long simple racemes of small drooping flowers on slender foot-stalks, each accompanied by a small simple leaf. The raceme, as I have observed, in this and some other species is naked, and not downy.





Asplenium adnigrum L. f. *Asplenium adnigrum* L. f.

ASPARAGUS officinalis.

Common Asparagus.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* in 6 segments, erect, inferior. *Berry* of 3 cells, with 2 seeds in each.

SPEC. CHAR. Stem herbaceous, generally erect, round. Leaves bristle-shaped, flexible. Spines none. Stipulæ solitary.

SYN. *Asparagus officinalis.* Linn. *Sp. Pl.* 448. *Huds.* *Fl. An.* 145. *Wurb. Bot. Arr.* 352.

Asparagus. *Raii Syn.* 267.

FEW persons would suppose the diminutive herb before us to be the origin of our luxuriant garden *Asparagus*, commonly called Sparrow-grass, and very vulgarly *Grass*. It grows wild in maritime places in the south of England, abundantly on the pebbly beach opposite the ferry going from Weymouth to Portland Island, from whence we received it by favour of A. B. Lambert, Esq. flowering in August.

Root perennial, creeping, with very long thick simple fibres, as in most of this natural order. Stem erect, occasionally procumbent, round, simple, and bearing alternate scales (or stipulæ without leaves below, in the upper part branching in a paniced alternate manner. Leaves in tufts, very narrow and bristly, but flexible, not rigid or spinous. Stipulæ solitary, membranous, triangular, acute, the upper ones ovate and jagged. We have never (as Dr. Stokes also remarks) found the inner stipulæ mentioned by Linnæus. Flowers from the axillæ of the branches, on capillary simple stalks, drooping. Not finding their inner segments reflexed, as the generic character of Linnæus requires, we have altered that character. The flowers appear hermaphrodite, though in some the stamina, in others the pistillum, are occasionally abortive. Style deeply 3-cleft. Berry red, sometimes in a poor soil perfecting but one seed in each cell.

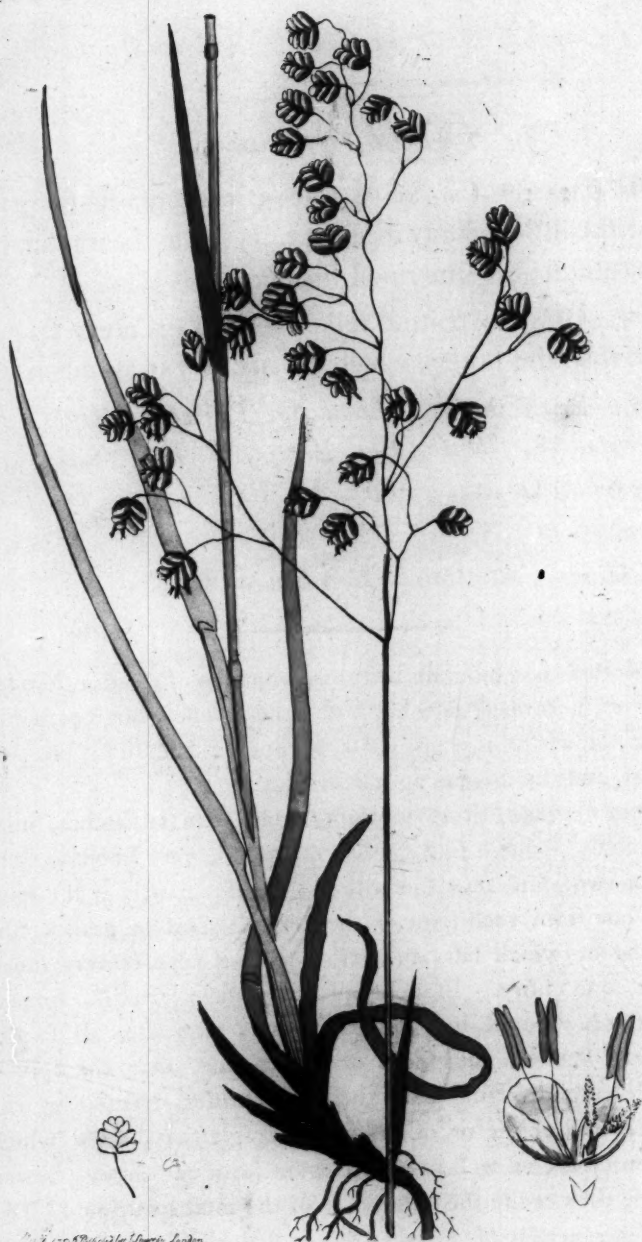
ASPARAGUS officinalis.

Common Asparagus.

HEXANDRIA Monocotyledon.

GRASS. CHAIR. Cw. in 6 segments erect, inferior. Rays
of 3 cells with 2 seeds in each.
SPEC. CHAR. Stem hexagonal, generally erect, round.
Leaves brittle-stemmed, flexible, spinous none.
Stipules solitary.
FRUIT. Asparagus officinalis. Linn. sp. Pl. 448. (Linn.)
Fr. de 144. N. 144. Pl. 448. 350.
Asparagus. R. 144. 350.

Dr. W. Pennant would suppose the diminutive herb before
us to be the origin of our luxuriant garden Asparagus, com-
monly called Sparrow-grass, and very vulgarly Cress. It grows
wild in maritime places in the south of England, abundantly
on the pebbly beach opposite the ferry going from Weymouth
to Portland Island, from whence we received it by favour of
J. B. Lamour, Esq. flowering in August.
Root perennial, creeping, with very long thick simple fibres.
As in most of the natural order. Stem erect, occasionally pro-
tuberant, round, simple, and bearing alternate leaves for stipules
without leaves below, in the upper part of the stem in a pinnate
obovate manner. Leaves in tufts, very narrow and bristly, but
flexible, not rigid or spinous. Stipules solitary, membranous,
triangular, acute, the upper ones ovate and jagged. We have
never (as Dr. Hooker also remarks) found the small stipules men-
tioned by Linnaeus. Flowers from the axils of the branches
on capillary simple stalks, drooping. Not differing their inner
parts reflected, as the generic character of Linnaeus re-
quires, we have altered that character. The flowers appear
anemone-like, though in some the laminae in others the
petals, are occasionally abortive. Style deeply 3-lobed.
Berry red, sometimes in a poor soil perfecting but one seed in
each cell.



Orchis latifolia L.

B R I Z A media.

*Common Quaking-Grass, or Cow-Quakes.**TRIANDRIA Digynia.*

GEN. CHAR. *Cal.* of 2 valves, with many flowers; the little spike two-ranked, its valves heart-shaped, obtuse, the innermost smaller.

SPEC. CHAR. Little spikes ovate. Calyx shorter than the florets, which are about 7 in number.

SYN. *Briza media.* *Limn. Sp. Pl.* 103. *Huds. Fl. An.* 38. *With. Bot. Arr.* 92. *Relb. Cant.* 38. *Sibth. Ox.* 43. *Mart. Fl. Rust. t.* 39. *Dicks. H. Sicc. fasc.* 5. 2.

Gramen tremulum. *Raii Syn.* 412.

VERY common in pastures, where, as Professor Martyn observes, it is made into hay with other grasses, but never cultivated alone for any particular purpose. The roots are perennial, and the flowers appear in May.

Root fibrous. Straw upright, from 6 to 18 inches, most commonly about a foot, in height, round, very smooth, with one or two joints near the bottom. Leaves mostly at the root, with one from each joint of the stem as usual in grasses, the sheaths of which last are very long, the stipules very short, blunt, and entire. Branches of the panicle purplish, spreading, the lowermost in pairs, the others alternate, all so extremely slender, and more or less zigzag, that the spikes, which hang drooping from their extremities, tremble at the least breath of air or other cause of agitation; from which circumstance, as well as their elegant form and shining brown colour, they excite the admiration of the most incurious. The calyx is generally of a darker colour than the floral valves, but like them in shape; the florets are about 7, in two ranks, so that the spike is much compressed, and of a broad ovate figure.

H R I X A media

Common Spreading Grass, or Green Spoken.

TRIADRYA DRYA

GEN. CHAR. Cal. of 2 valves, with many flowers; the little spike two-ranked, its valves heart-shaped, obtuse, the innermost smaller.

SPEC. CHAR. Little spikes ovate. Calyx shorter than the flowers, which are about 7 in number.

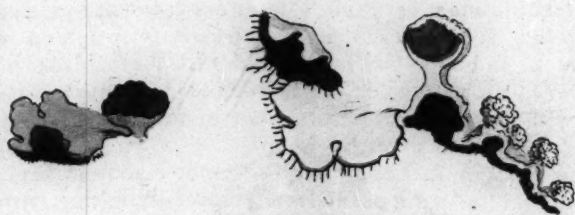
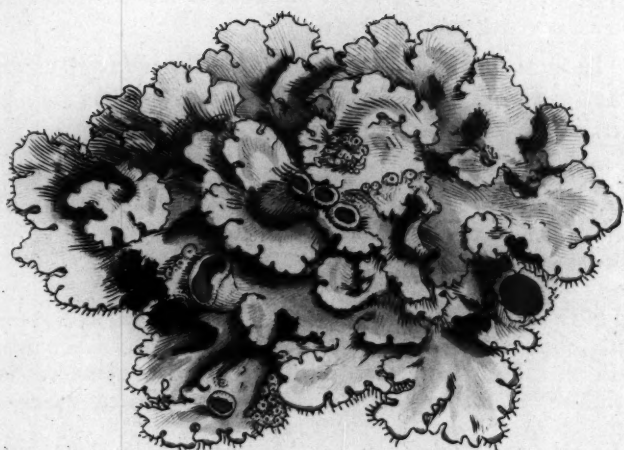
Syn. *Triadrya media*: Linn. Sp. Pl. 103. Hb. Pl. An. 38. W. Hb. Bot. Art. 92. R. Hb. Cant. 38. Sibth. Or. 43. Mart. Fl. Belg. t. 39. Dick. H. Sic. pag. 2. 37.

Gramen triadryum. Pan. Syn. 412.

VERY common in pastures, where, as Professor Martyn observes, it is made into hay with other grasses, but never cultivated alone for any particular purpose. The roots are perennating, and the flowers appear in May.

Root fibrous. Stems upright, from 6 to 18 inches, most commonly about a foot, in height, round, very smooth, with one or two joints near the bottom. Leaves mostly at the root, with one from each joint of the stem as usual in grasses, the sheaths of which last are very long, the ligules very short, blunt, and entire. Branches of the panicle purplish, spreading, the lowermost in flower, the others alternate, all to extremely slender, and more or less zigzag, that the spikes, which hang drooping from their axillaries, resemble at the least breadth of air or other causes agitation; from which circumstance, as well as the elegant form and shining brown colour, they excite the admiration of the most incivilians. The calyx is generally of a darker colour than the floral valves, but like them in shape; the flowers are about 7, in two ranks, so that the spike is much compressed, and of a broad ovate figure.





L I C H E N perlatus.

*Pearly Lichen.**CRYPTOGAMIA Alga.*

GEN. CHAR. Male, scattered warts.

Femalé, smooth shields or tubercles, in which the seeds are imbedded.

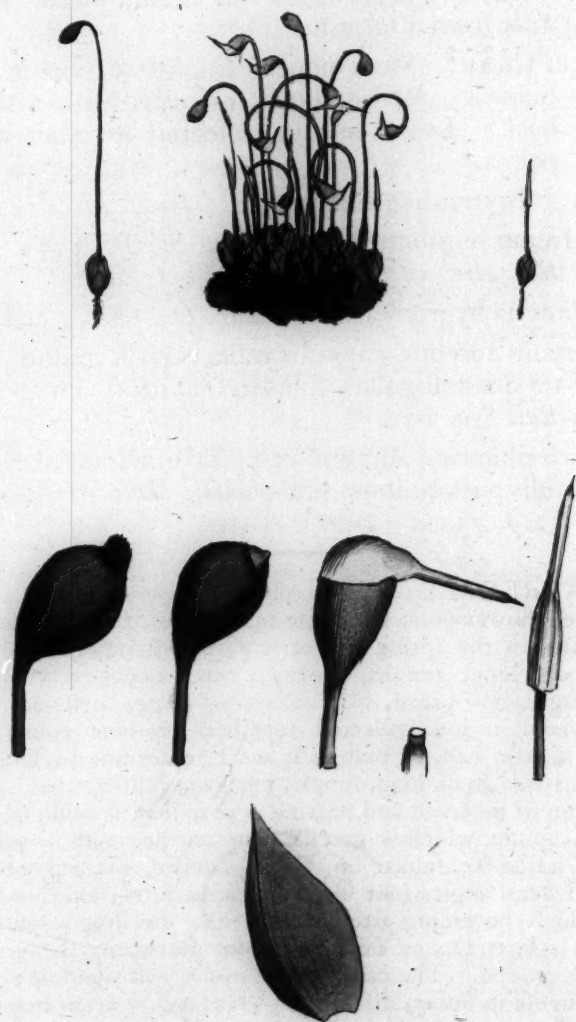
SPEC. CHAR. Leafy, creeping, lobed; grey and smooth above; black and hairy below; bordered with powdery tubercles. Shields on short foot-stalks, olive-coloured, concave, with a crenate powdery inflexed margin.

SYN. Lichen perlatus. *Linn. Syst. Nat. ed. 12. v. 2. 712. Hudf. Fl. An. 543. With. Bot. Arr. v. 3. 205. Relb. Cant. 434. Sibth. Ox. 330. Smith's Tour, v. 1. 225. 260.*Lichenoides glaucum perlatum, subtus nigrum et cirrosum. *Dill. Musc. 147. t. 20. f. 39.*

FOUND on the trunks of trees, old park pales, &c. very frequently, but it is one of the most rare of all Lichens in fructification. Our specimen in that state was gathered in Cardiganshire last summer, and is the only British one we ever saw.

The fronds spread into patches about as broad as the hand, not very firmly attached in any part, and the margin is quite loose and generally erect. Their upper surface is of a greyish white, greenish when very much moistened, smooth, though a little pitted; sometimes indeed it becomes sprinkled with mealy cracks and tubercles intermixed with short black hairs. The under side is very black, partly smooth and shining, partly clothed with short black rigid branched or forked hairs, which sometimes project beyond the margin like a fringe; at other times the margin is smooth, and chestnut-coloured, beneath. The more elevated parts of the frond, especially in the centre of each patch, are bordered with roundish grey mealy tubercles, compared by Dillenius to pearls, by which this species is essentially distinguished from *L. saxatilis*, *glaucus*, and some others near it. Shields a little elevated, cup-shaped, concave; their disk of a greenish olive when wet, browner when dry; their margin inflexed, grey, powdery, crenate and lobed. Dillenius errs in describing the hairs of the under surface as not branched.





Des. 16798. Pulten. 31. 11. 1800. 1800.

B R Y U M hygrometricum.

Yellow twisting Bryum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsf.* with a lid. *Veil* smooth. *Flower-stalk* from a terminal tubercle.

SPEC. CHAR. Stem none. Capsule drooping, pear-shaped. Veil oblique, angular, with a slender beak. Leaves ovate, collected together at their points.

SYN. *Bryum hygrometricum.* *Huds. Fl. An.* 488.

Mnium hygrometricum. *Linn. Sp. Pl.* 1575. *With. Bot. Arr.* v. 3. 86. *Relb. Cant.* 399.

Funaria hygrometrica. *Sibth. Ox.* 288.

Bryum aureum, capitulis reflexis piriformibus, calyptra quadrangulari, foliis in bulbi formam congestis. *Raii Syn.* 101.

B. bulbiforme aureum, calyptra quadrangulari, capsulis piriformibus nutantibus. *Dill. Musc.* 407. t. 52. f. 75.

EXTREMELY common on moist garden walks and neglected flower-pots, waste ground, heaths, &c. producing its capsules in the spring and early part of summer abundantly.

Roots long, simple, downy. Stem none, or very short, bearing a few broad, ovate, entire, acute, pellucid leaves, so curved in and collected together by their points as to form a little ball, or bulb as it were, according to Dillenius's definition. Stalk long, simple, upright, yellow, then purple, its summit incurved and bearing a pear-shaped obliquely pendent capsule, which is green when unripe, with a yellowish blunt lid, and enfolded in a long, slender, sharp-pointed veil with several angles (not always exactly four), the lower part of which becoming stretched by the swelling capsule, the point is bent to one side, and soon afterwards the veil falls to the ground. The capsule turns yellow in ripening; brown and rugose in decay, discharging great plenty of an impalpable pale-brown powder, which is the seed.

Linnaeus in his *Flora Suecica* rightly asserts, that if the lower half of the stalk be moistened, the capsule turns one way, and if the upper half (not as erroneously translated in the *Bot. Arr.* the head, or capsule) receives the moisture, it turns in a contrary direction.

BRYUM hygrometricum.

Yellow twining Bryum.

CRYPTOGAMIA Moss.

GER. CHAR. Caps. with a lid. 1. Inflorescence. Mosses.

Spec. CHAR. Stem none. Capsule drooping, pear-shaped. Vex. oblique, angular, with a slender beak. Leaves none, collected together at their points.

Syn. Bryum hygrometricum. Hook. Fl. An. 483.

Mosses hygrometricum. Vilm. Sp. Pl. 1375. WWA.

Am. Herb. v. 3. 383. (N. Am. Can. 300.)

Fossils hygrometricum. Vilm. Sp. Pl. 1375.

Bryum antrum, capsule reflexis peristomium, caps.

the quadrangular, lobes in half; lobes antrum.

Am. Sp. 101.

B. bulbiforme antrum, caps. quadrangular, lobes

lobes bulbiformis bulbiformis. Vilm. Sp. Pl. 1375.

EXTREMELY common on moist rocks and no-

glech flower-top, with ground-hugging, 2. Inflorescence is

capsules in the spring and early part of summer abundant.

Roots long, simple, brown, stem none, or very short,

bearing a few broad, ovate, entire, green, pellucid leaves,

to curved in and collected together by their points, so as

form a little ball, or bulb as it were, according to the degree

of definition. Stalk long, simple, upright, yellow, then purple,

its summit increased and bearing a pear-shaped oblique cap-

sule capsule, which is green when mature, with a yellowish

beak, and enclosed in a long, slender, sharp pointed veil

with several angles (not always exactly four), the lower part

of which becoming flattened by the swelling capsule, and

point is bent to one side and soon afterwards the veil falls

to the ground. The capsule turns yellow in ripening; brown

and rugose in decay, discharging great plenty of an impalpable

fine brown powder, which is the seed.

Limbs in this moss become tightly united, that if the lower

half of the stalk be moistened, the capsule turns one way, and

if the upper half (not as erroneously translated in the bot. dic-

tionary) receives the moisture, it turns in a con-

trary direction.

JOHN GUNN, M.D.
Surgeon General





C R O C U S autumnalis.

*Saffron, or Autumnal Crocus.**TRIANDRIA Monogynia.*

GEN. CHAR. *Cor.* in 6 divisions, regular. *Stigmas* convoluted.

SPEC. CHAR. Sheath of one leaf, radical. Tube of the corolla very long. Stigma in three deep linear divisions hanging out of the flower.

SYN. *Crocus sativus* *α.* *Linn. Sp. Pl.* 50. *Huds. Fl. An.* 13. *Witb. Bot. Arr.* 37. *Relb. Cant.* 15. *Woodv. Med. Bot. t.* 176.

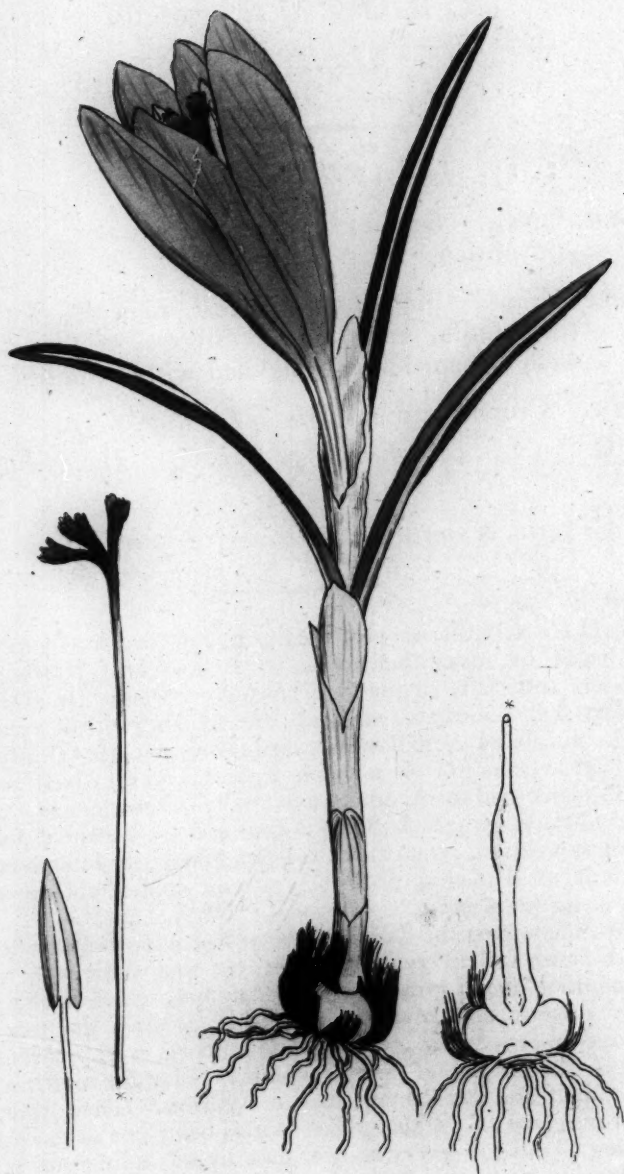
C. officinalis. *Mart. Fl. Rusf. t.* 58.

Crocus. *Raii Syn.* 374. *Ger. em.* 151.

SAFFRON has very little right, as Professor Martyn observes, to a place in the British Flora, having been introduced from the south of Europe for culture as a medicinal plant. We should scarcely indeed have followed the example of our predecessors in retaining it, were it not for the authority of the Rev. Mr. Wood, who found it about Halifax, and of Mr. Whately, who observed it near Derby, according to Dr. Withering. Our specimen came from Saffron Walden, the only place in which this article of the materia medica is now produced for sale in England. See a full account of it in the *Flora Rustica* and *Medical Botany*.

Root a depressed bulb. Leaves all radical, invested with membranous sheaths, from which they emerge but little before the flowers fade; they are linear, dark green above, with a white longitudinal furrow; pale beneath, with a very prominent but flattened mid rib; their margins slightly revolute. Flowers sessile at the root, though with so long a cylindrical tube as to seem pedunculated; the limb in 6 elliptical, concave, rich-purple, regular segments. Stamina shorter than the corolla, erect. Style about equal to the corolla, but hanging out on one side between 2 of its segments, being deeply cloven into three deep-orange linear stigmas (which are the Saffron itself), their edges rolled in, their summits notched.—It flowers in August or September. A kind of tap-root frequently grows from the bulb, which is considered by the cultivators as a disease.





Bot. 1. 1796. Bull. et al. by J. G. Smith London.

CROCUS vernus.

*Spring Crocus.**TRIANDRIA Monogynia.*

GEN. CHAR. Cor. in 6 divisions, regular. Stigmas convoluted.

SPEC. CHAR. Sheath of one leaf, radical. Tube of the corolla very long. Stigma in three short wedge-shaped lobes, enclosed within the flower.

SYN. Crocus vernus. *Mart. Fl. Rust. t. 59.*

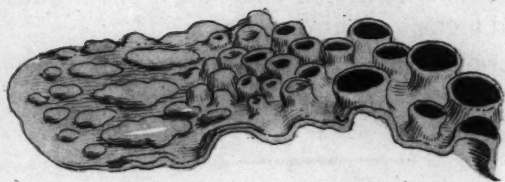
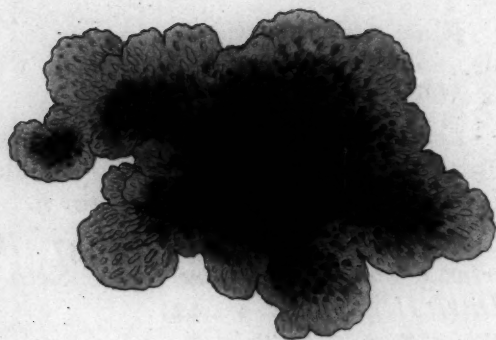
C. sativus β . *Linn. Sp. Pl. 50. Hudf. Fl. An. 13. With. Bot. Arr. 38.*

C. vernalis cæruleus. *Deering Nottingh. 60.*

THIS wild specimen of the Spring, or Garden, Crocus was gathered by Mrs. Sherbrooke of Arnold near Nottingham, March 15th last, in the same meadows where Dr. Deering observed it 60 or 70 years ago, and which are still rendered quite purple by these flowers every spring; so that this species at least appears to have a better right to be reckoned an English plant than many others universally acknowledged, as the Rev. Mr. Wood, F. L. S. to whom we are indebted for the communication, remarks. Professor Martyn mentions having seen it at Battersea, near the mill, in considerable quantity, above 40 years ago.

It differs from the Saffron Crocus in having broader leaves, with flatter or less revolute edges; yet that difference is not so constant as the great one of the stigmas, which in the plant before us are comparatively very little divided, the segments wedge-shaped, much and unequally notched, erect (not hanging out of the flower), of a paler colour, and quite destitute of the smell and cordial qualities of Saffron.—Their times of flowering are also widely different, this being one of the earliest spring plants, as every body knows by the numerous purple, yellow, and white varieties growing in every garden; the other is quite an autumnal flower, and these differences are permanent under every mode of culture hitherto tried.





Leptogorgia pallasii (Lamour.)

LICHEN nigrescens.

Blackish, or Bat's-wing Lichen.

CRYPTOGAMIA Alga.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, gelatinous, membranous, rugged and blistered, of a dark dull green, the lobes rounded. Shields clustered, reddish brown.

SYN. Lichen nigrescens. *Huds. Fl. An.* 537. *With. Bot. Arr.* v. 3. 198. *Relb. Cant.* 430. *Sibth. Ox.* 328. *Dicks. H. Sicc. fasc.* 11. 22.

L. vespertilio. Lightf. Fl. Sc. 840.

Lichenoides saxatile membranaceum gelatinosum tenue nigrescens. Raii Syn. 72.

L. gelatinosum membranaceum, tenue, nigricans. Dill. Musc. 138. t. 19. f. 20.

NOT unfrequent on the trunks of trees in damp woods, or on moist rocks, &c. It grows in patches lying close to the bark, especially the outermost lobes of the frond, which are rounded and entire, appearing very much wrinkled from numerous oblong parallel pustule-like elevations in the substance of the frond, each of which is hollowed out on the under side. The whole plant is smooth, membranous, tender and gelatinous, of a dull deep green when wet, blackish when dry, and not unaptly compared by Dillenius to a bat's wing. Clusters of little granules arise about the centre of the plant, and sometimes all over it, which are probably *gemmae*, analogous to the bulbs of *Dentaria bulbifera*, *Lilium bulbiferum*, &c. and this appears to be the most common mode of propagation in this Lichen as well as some others. The shields are rarely found. When present, they are clustered about the middle of the plant, small, of a reddish brown, each elevated on a little protrusion of the frond, and with a slight entire green margin originating from it. When old they become convex.

LICHEN nigrescens.

Blackish, or Bark-ewing Lichen.

CRYPOTOGAMIA.

Gen. CHAR. Male, scattered warts.
Female, imbricate shields or tubercles, in which the seeds are imbedded.

Spec. CHAR. Leaves, membranous, imbricate, and blistered, of a dark dull green, the lobes rounded. Stalks clustered, reddish brown.

Syn. Lichen nigrescens. Hoffm. Fl. Fr. 227. Wulfen. Bot. Berol. 3. 1798. Hoffm. Carr. 430. Sw. Ox.

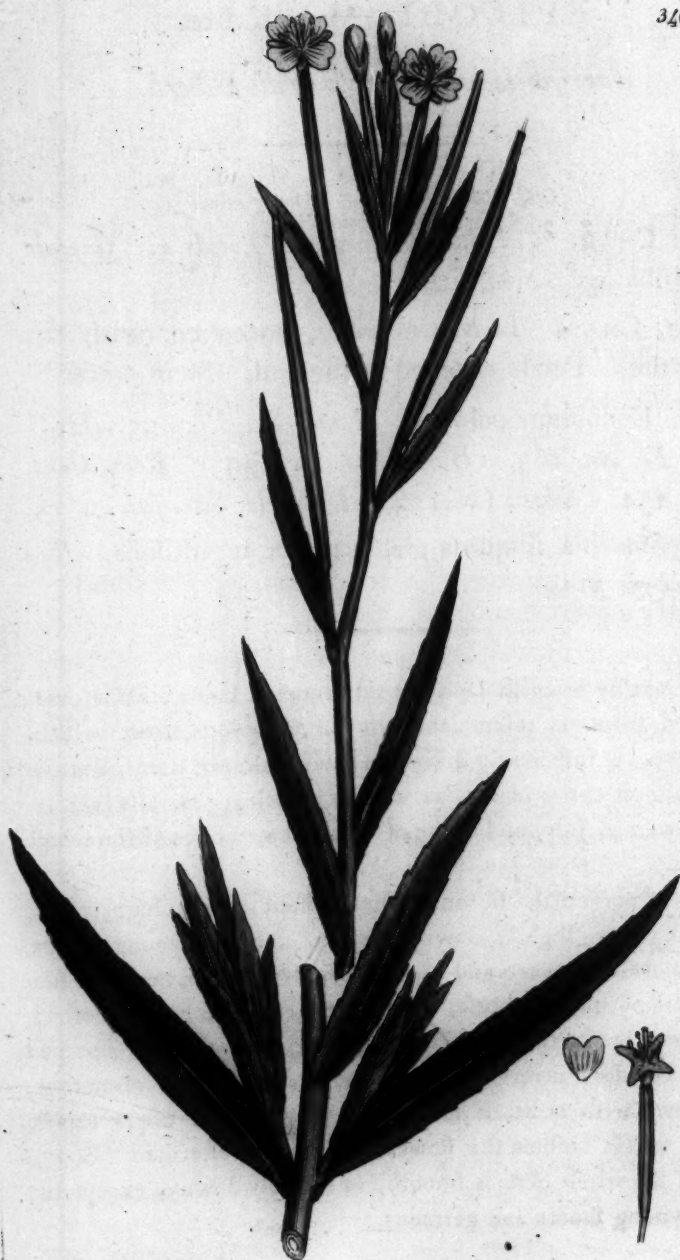
328. Dickl. H. Ste. 11. 22.
L. vespertilio. Light. Fl. Sc. 840.

Lichenoides saxatile membranaceum gelatinosum tenue nigrescens. Rein Sw. 72.

L. gelatinosum membranaceum, tenue, nigrescens. Dill. Misk. 138. 1. 19. 1. 20.

NOT native on the trunks of trees in damp woods, or on moist rocks, &c. It grows in patches lying close to the bark, especially the outermost lobes of the frond, which are rounded and entire, appearing very much wrinkled from numerous oblong parallel pustule-like elevations in the substance of the frond, each of which is hollowed out on the under side. The whole plant is limbo, membranous, tender and gelatinous, of a dull deep green when wet, blackish when dry, and not unaptly compared by Willd. to a bark-ewing. Clusters of little granules arise about the centre of the plant, and sometimes all over it, which are probably gemmae, analogous to the bulbs of *Dactylis bulbifera*, Lichen bulbiferus, &c. and this appears to be the most common mode of propagation in this Lichen as well as some others. The thills are rarely found, though present, they are clustered about the middle of the plant, small, of a reddish brown, each elevated on a little prominence of the frond, and with a slight entire green margin originating from it. When old they become convex.





Samolus ruber L.

EPILOBIUM palustre.

Narrow-leaved Marsh Willow-herb.

OCTANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Capsule* oblong. *Seeds* feathered.

SPEC. CHAR. Leaves opposite, lanceolate, nearly entire. Petals notched at the end. Stem erect.

SYN. *Epilobium palustre.* *Linn. Sp. Pl.* 495. *Huds. Fl. An.* 163. *With. Bot. Arr.* 391. *Relb. Cant.* 154. *Sibth. Ox.* 123. *Dicks. H. Sicc. fasc.* 2. 15.

Lyfimachia filiquosa glabra minor angustifolia. Raii Syn. 311.

IN marshy moorish land not unfrequent, though easily overlooked from its resemblance to *E. tetragonum*, from which, however, it sufficiently differs in having a round stem, narrow and almost entire leaves, as well as in being generally smaller. It flowers in July, and is one of the least attractive of the whole genus.

Root perennial, fibrous. Stem about a foot high, erect, round, leafy, slightly downy, as are also the young leaves, flower-stalks, germen and calyx. Leaves opposite, nearly sessile, linear-lanceolate, obtuse, entire or very obsoletely toothed. Flowers erect, small, of a pale purple, the petals so notched as to be often inversely heart-shaped. Seeds very numerous, crowned with at uft of long slender hair. The upper leaves, from whose bosoms the flowers spring, are alternate. Sometimes the whole herb is smooth, or scarcely downy, except the very young shoots and germens.

EPILOBIMUM palustre

Narrow-leaved St. Peter's Wort

OCTADENA

Gen. Char. Corolla 4-lobed. Petals 4. Capsule oblong. Seeds 4-angled.

Spec. Char. Leaves opposite, lanceolate, nearly entire. Petals notched at the end. Stem erect.

Syn. Epilobium palustre. Linn. Sp. Pl. 493. Hoffm.

Fl. de la 163. Willd. Bot. Ber. 391. Rott. Cam.

134. Sibth. Ox. 123. Dill. H. Sic. fasc. 15.

Lychnis filipendula glabra minor angustifolia. Rott.

St. 311.

It is mostly monotheca and not unispermous, though easily over-looked from its resemblance to E. tetragynum, from which, however, it is sufficiently distinguished by its narrow and almost entire leaves, as well as in being generally smaller. It flowers in July, and is one of the least attractive of the whole genus.

Root perennial, fibrous. Stem about a foot high, erect, round, hairy, slightly downy, as are also the young leaves. Flower-stalks, germs and calyx. Leaves opposite, nearly sessile, linear-lanceolate, obtuse, entire or very minutely notched. Flowers erect, small, of a pale purple, the petals are notched as to be often inversely heart-shaped. Seeds very numerous, crowned with an oil of long slender hairs. The upper leaves from whole below the flowers, being the stem. Sometimes the whole herb is smooth, or scarcely downy, except the very young shoots and germs.





OENANTHE pimpinelloides.

*Parsley Water-dropwort.**PENTANDRIA Digynia.*

GEN. CHAR. *Florets* irregular: those of the disk sessile and barren. *Fruit* crowned with the calyx.

SPEC. CHAR. Leaflets of the radical leaves wedge-shaped, cloven; those on the stem entire, linear, very long. General involucre of several linear leaves.

SYN. *Oenanthe pimpinelloides*. *Linn. Sp. Pl.* 366. *Huds. Fl. An.* 121. *With. Bot. Arr.* 297.

O. Staphylini folio aliquatenus accedens. Raii Syn. 219.

WE have received this from the Rev. Mr. Hemsted, and from the Rev. Mr. Hugh Davies. The latter gathered it in salt marshes near Aber, North Wales.

Root perennial, consisting of several slender fusiform fleshy tubercles, intermixed with fibres. Stem erect, or ascending, with so many angles as to be almost cylindrical, striated, smooth, leafy, not much branched. Radical leaves bipinnate; the leaflets either elliptical and entire, or wedge-shaped, and more or less cloven: Stem-leaves pinnate, scarcely bipinnate; leaflets long, linear and acute. Umbels terminal. Involucra of several linear leaves, the partial ones most numerous. Calyx of 5 unequal, sharp, spreading, considerable leaves. Petals unequal, with a point so inflexed as to render them inversely heart-shaped, as in many of this tribe, sometimes reddish on the back. The flowers appear in July, and perfect but few seeds.

This species is not esteemed poisonous, but the whole genus is certainly to be suspected, on account of the very dangerous *Oenanthe crocata*.

ОЕНАНТН

Perley Water-Department.

PEWLANDRIA DE 1900

GEN. CHAR. Flowers irregular; those of the disk
 (disk and banner). Banner crowned with the calyx.
 SPEC. CHAR. Leaves of the radical leaves wedge-
 shaped, cuneate; those on the stem entire, linear,
 very long. General involucre of several linear
 leaves.

This species is not extremely poisonous, but the whole genus is certainly to be suspected on account of the very dangerous





Bot. 1796. *Thalictrum flavum* L.

OENANTHE *peucedanifolia*,*Sulphur-wort Water-dropwort.*

PENTANDRIA Digynia.

GEN. CHAR. *Florets* irregular: those of the disk
sessile and barren. *Fruit* crowned with the calyx.

SPEC. CHAR. Leaflets all linear. General involucrum
none. Knobs of the root sessile, elliptical.

SYN. *Oenanthe peucedanifolia*. *Pollich Plant. Palat*,
vol. 1. 289. t. 3. Sibth. Ox. 98.

SENT by W. Mathew, Esq. from near Bury, and by the
Rev. Mr. Abbot from the neighbourhood of Bedford. Professor
Sibthorp also found it in several places about Oxford, as men-
tioned in his Flora. No other British author has noticed this
species, probably having confounded it with *O. pimpinelloides*,
which is rather a maritime plant, while *peucedanifolia* grows in
fresh inland waters.

The root of this consists of thick oval or elliptical knobs,
which taste something like parsnep, but are probably dangerous
food. Stem thicker than in the preceding, as well as taller and
more erect. Radical leaves bipinnate; stem-leaves scarcely
more than pinnate; leaflets all linear and acute, by which it is
at once distinguished from the preceding, as well as by the want
of a general involucrum, of which there are scarcely ever any
signs. The rays of the general umbel are also fewer and much
thicker than in *O. pimpinelloides*, and the calyx is more erect.
The flowers appear in June, and are often reddish, the marginal
ones frequently female only, being impregnated by those of the
centre.

OENANTHE pseudanthis.

Subsp. nov. Water-cress.

PENTANDRIA. Digma.

Gen. CHAR. Flowers irregular; those of the disk
 sessile and parted. Lvs. crowded with the calyx.
 Spec. CHAR. Leaves all linear. General involucre
 none. Knobs of the root elliptical.

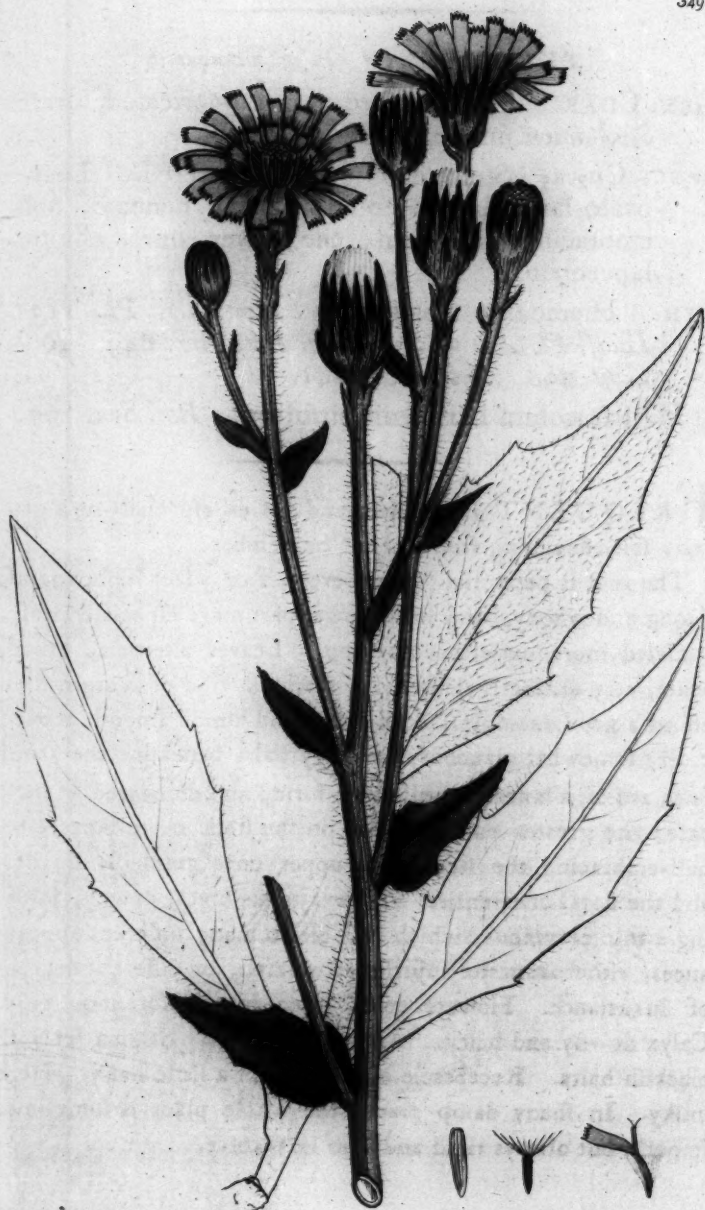
Syn. Oenanth. pseudanthis. Polib. Plant. Palat.

col. 1. 259. 3. SWAB. Ox. 25.

SENT by W. Mather, Esq. from near Bury, and by the
 Rev. Mr. Abbot from the neighbourhood of Bedford. Professor
 Sibthorp also found it in several places about Oxford, as men-
 tioned in his Flora. No other British author has noticed this
 species, probably having confounded it with *O. spicata*,
 which is rather a maritime plant, while *pseudanthis* grows in
 fresh inland waters.

The root of this consists of thick oval or elliptical knobs,
 which take the form of the petiole, but are probably dangerous
 food. Stem thicker than in the preceding, as well as taller and
 more erect. Radical lvs. sessile; stem-leaves linearly
 more than pinnate; leaves of flowers and acute, by which it is
 at once distinguished from the preceding, as well as by the want
 of a general involucre, of which there are scarcely even any
 signs. The rays of the general involucre are also fewer and much
 thicker than in *O. spicata*, and the calyx is more erect.
 The flowers appear in June, and are often reddish, the marginal
 ones frequently female only, being impregnated by those of the
 stamens.





1798. *Pellaea bifida* (L.) Swartz.

HIERACIUM fabaudum.

*Shrubby Hawkweed.*SYNGENESIA *Polygamia-æqualis*.

GEN. CHAR. *Recept.* naked. *Cal.* imbricated, ovate.
Seed-down simple, sessile.

SPEC. CHAR. Stem erect, many-flowered. Leaves ovato-lanceolate, dentated, hairy beneath, half-embracing the stem; the lower ones elliptic-lanceolate.

SYN. Hieracium fabaudum. *Linn. Sp. Pl.* 1131.
Huds. Fl. An. 345. *Witb. Bot. Arr.* 849. *Relb. Cant.* 298. *Sibth. Ox.* 241.

H. fruticosum latifolium hirsutum. Raii Syn. 167.

FREQUENT in coppices and groves, especially on a gravelly soil, flowering from July to September.

The root is perennial. Stem erect, 2 or 3 feet high, round, strong and woody, hairy in the lower part more especially, leafy, panicled more or less at the top. Leaves alternate, broad, acute, very distinctly dentated (of which kind of margin they afford a good example); dark-green and almost smooth above; paler, somewhat glaucous, and very hairy beneath: the lower ones are of a lanceolate-elliptical form, and elongated at their base; the greater part of those on the stem ovato-lanceolate, half-embracing the stem; the upper ones gradually smaller, and the floral ones entire. Flower-stalks erect, downy, forming a thin corymbus, which is liable to many different appearances, either from the injuries of animals, or different degrees of luxuriance. Flowers erect, open in the forenoon only. Calyx downy and hairy. Antheræ greenish. Stigma set with blackish hairs. Receptacle cellular, often a little hairy. Herb milky. In shady damp places the whole plant is sometimes smooth, but always rigid and firm in texture.

HERACIUM. Labradum.

Sperry Hecetum.

SYNOPSIS. Perennial.

GRASS. Stem erect, many-headed. Leaves
 ovate-lanceolate, pointed, with densely hairy
 sheath; the lower ones elliptic-
 lanceolate.

GRASS. Stem erect, many-headed. Leaves
 ovate-lanceolate, pointed, with densely hairy
 sheath; the lower ones elliptic-
 lanceolate.

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 ovate-lanceolate, pointed, with densely hairy
 sheath; the lower ones elliptic-
 lanceolate.

GRASS. Stem erect, many-headed. Leaves
 ovate-lanceolate, pointed, with densely hairy
 sheath; the lower ones elliptic-
 lanceolate.

FREQUENT in dry places and groves, especially on a gra-
 velly soil, flowering from July to September.

The root is perennial. It is a thick, short, round,
 knotted and woody, hairy in the lower part more especially, leafy
 pointed more or less at the top. It is very short, thick,
 very difficultly detached (of which kind of margin they
 show a good example); dark green and smooth above;
 pale, somewhat glaucous, and very hairy beneath: the lower
 part is of a lanceolate-oblong form, and elongated at their
 base: the greater part of roots on the stem ovate-lanceolate,
 half-embracing the stem: the upper ones gradually smaller
 and the lower ones entire. The root is erect, downy, form-
 ing a thin covering, which is liable to many different appear-
 ances, either from the rigidity of the root, or from the growth
 of the leaves. The root is erect, downy, form-
 ing a thin covering, which is liable to many different appear-
 ances, either from the rigidity of the root, or from the growth
 of the leaves. The root is erect, downy, form-
 ing a thin covering, which is liable to many different appear-
 ances, either from the rigidity of the root, or from the growth
 of the leaves.





Oct^r 1. 1796 Published by J^o Pownall, printer

P Y R U S domestica.

*Service Tree.**ICOSANDRIA Pentagynia.*

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Apple* inferior, with 5 cells and several seeds.

SPEC. CHAR. Leaves pinnate: leaflets equal, downy beneath, serrated towards the point. Flowers in panicles.

SYN. *Sorbus domestica.* *Linn. Sp. Pl.* 684. *Huds. Fl. An.* 215. *With. Bot. Arr.* 514. *Crantz. Stirp. fasc.* 2. 48. *tab.* 2. *f.* 3.
Sorbus. *Raii Syn.* 452.

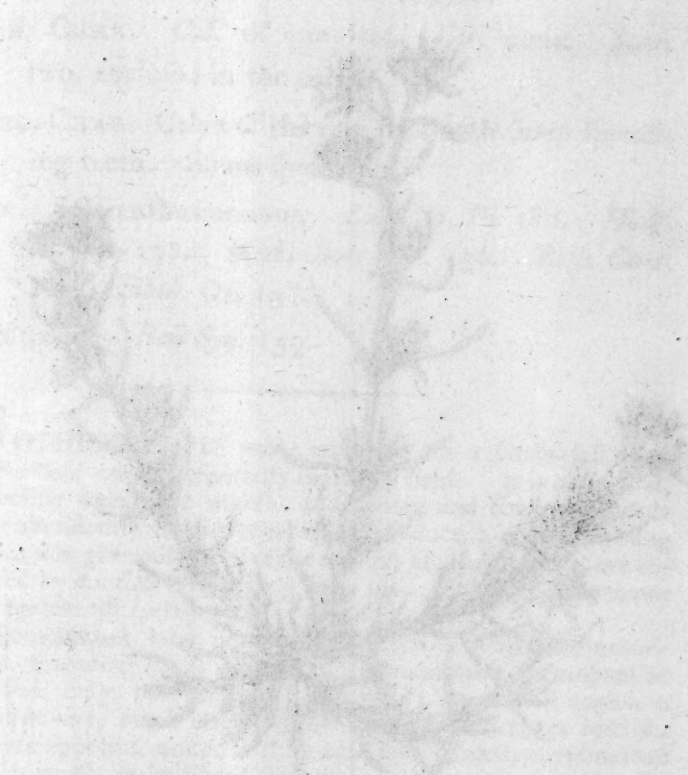
WE have been favoured by Lord Viscount Valentia with fresh wild specimens of this rare British plant, gathered from a solitary tree in the middle of Wire forest, near Bewdley, Worcestershire, the same probably that was observed by Mr. Pitts in Ray's time. It is said to grow also in the mountainous parts of Cornwall and Staffordshire, and may now and then be met with in old gardens, having been formerly cultivated for the sake of its fruit, which is like, but inferior to, a Medlar. It flowers in May.

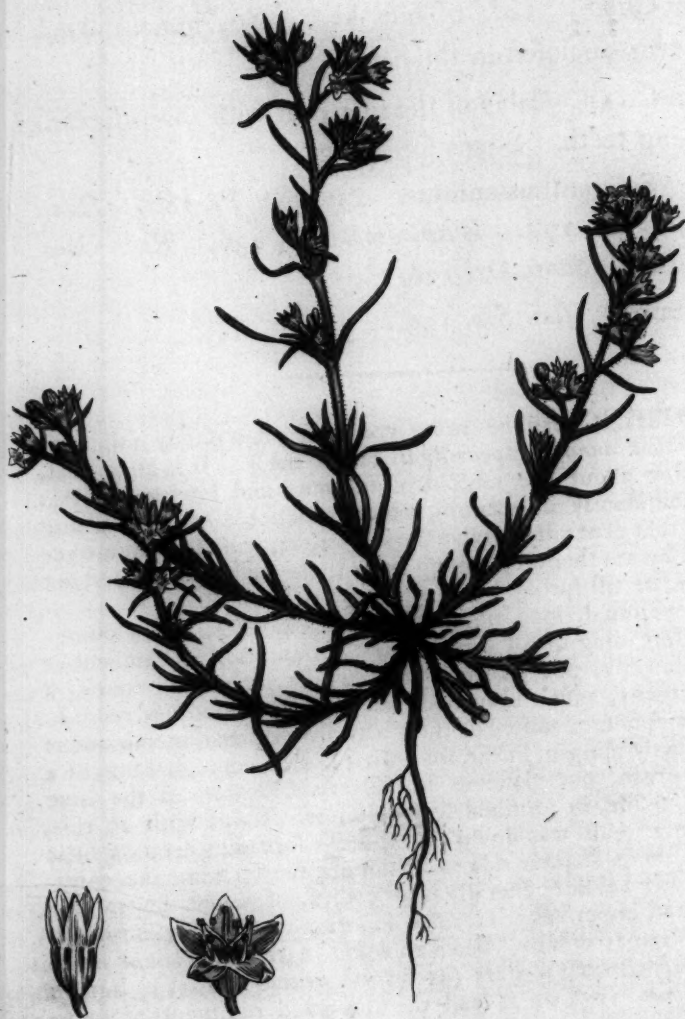
The tree is of a middle size, not unlike the Mountain Ash, of very slow growth, not flowering till it arrives at a great age, and the wood is very hard. Leaves alternate, composed of about 7 or 9 pair of opposite, sessile, ovate or oblong leaflets, with an odd terminal one of the same size; all entire at the base, serrated from about half way to the end, smooth above, downy beneath, but that downiness goes off towards autumn. Flowers in panicles, cream-coloured. Calyx very woolly. Petals concave, with hairy claws. Stamina numerous. Styles always 5, with oblique concave stigmas. Fruit pear-shaped, reddish and spotted, extremely austere, and not eatable till it is quite mellowed by frost or time, when it becomes brown and very soft. Cells 5, with one seed in each.

Every botanical principle whatever obliges us to remove this tree from the genus of *Sorbus*, as *Crantz* also observes, who would have been more regarded in many cases than he is, if he had written with more temper. From an accurate examination of the half-ripe fruit, we have found it a genuine *Pyrus*, having indeed only one seed in each bivalve capsule of the apple, but that is not peculiar to this species. The pinnated leaves are (as to *habit*) a much more important objection.

COLLEGIUM

1794





Salicornia L. 1796. *Salicornia* L. 1796. *Salicornia* L. 1796.

SCLERANTHUS annuus.

*Annual Knawel.**DECANDRIA Digynia.*

GEN. CHAR. *Cal.* of one leaf. *Cor.* none. *Seeds* two, enclosed in the calyx.

SPEC. CHAR. Calyx of the ripe fruit with sharp spreading teeth. Stems spreading.

SYN. *Scleranthus annuus.* *Linn. Sp. Pl.* 580. *Hudsf. Fl. An.* 178. *With. Bot. Arr.* 436. *Relb. Cant.* 165. *Sibth. Ox.* 138.

Knawel. Rar. Syn. 159.

NOTHING can be more common on a sandy soil than *Scleranthus annuus*, especially in fallow fields. It is an annual, flowering about the middle of summer, and sowing its seeds very abundantly in autumn, which produce a crop of young plants that generally survive the winter, or, if destroyed, are replaced by another crop arising from those seeds that happen not to vegetate till spring.

Root annual, long, not much branched. Stems very numerous, spreading in all directions, the outermost decumbent at the base only, not prostrate their whole length, all round, a little downy, much branched, leafy, pale, sometimes reddish. Leaves opposite, united at their base by a dilated, membranous and downy margin, linear, somewhat keeled, acute, smooth, of a grassy green, not glaucous nor silvery. Flowers of the same colour, sessile, in terminal leafy clusters. Calyx with 10 ribs, and cloven half way down into 5 sharp spreading teeth, a little membranous at their edges. Stamina shorter than the calyx, sometimes 10, but generally from 5 to 8, of which several are short and imperfect. Germen superior, ovate. Styles spreading. Stigmas downy. Seed enclosed in the permanent hardened calyx, often solitary (as several writers remark); but we have found two, or at least the unripened rudiments of two.

SCLERANTHUS annuus.

Annual Known.

DECAANDRIA Dyzma

GRN. CHAR. Cal. of one leaf. Cor. none. Seed

two, enclosed in the calyx.

Spec. CHAR. Calyx of the tube with sharp forward-
ing teeth. Stems spreading.

Stems. Scleranthus annuus. Leaf 2. P. 380. Herb.

Fl. Mar. 178. Webb. Bot. 436. Rab. Cam.

1805. 27th. Oct. 138.

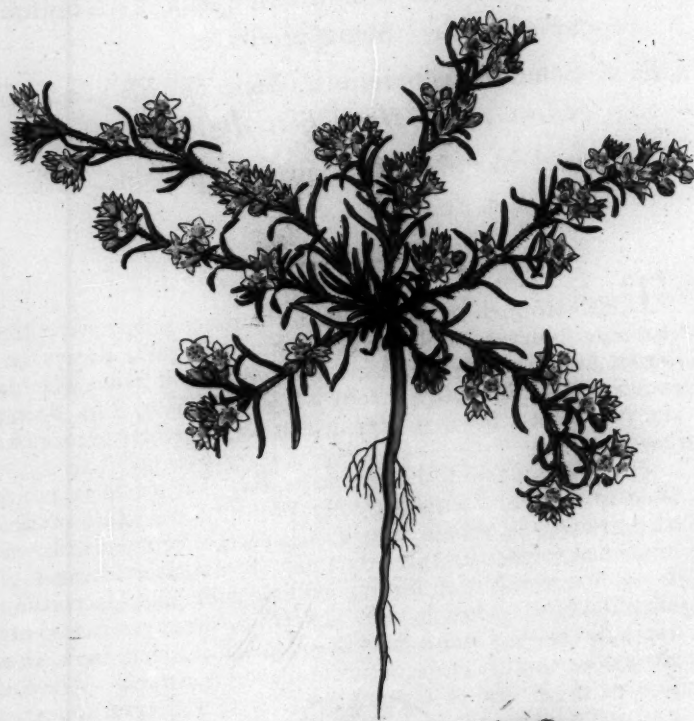
Known. Ran. 2. 150.

NOTHING can be more common on a sandy soil than
Scleranthus annuus, especially in fallow fields. It is an annual,
flowering about the middle of summer, and during its seeds
very abundantly in autumn, which produce a crop of young
plants that generally survive the winter, or, if destroyed, are re-
placed by another crop arising from those seeds that happen not
to vegetate all winter.
Most annuals, however, are not so much branched. Stems very nume-
rous, spreading in all directions. The outermost decumbent at
the base only, not prostrate. First whole length all round, a
little downy, much branched, leafy, sometimes reddish.
Leaves opposite, united at their base by a distinct, membranous
and downy margin, linear, somewhat sessile, acute, smooth, of a
greenish green, not glaucous nor fleshy. Flowers of the same
colour, sessile, in terminal leafy clusters. Calyx with 10 ribs,
and cloven half way down into 5 sharp spreading teeth, a little
membranous at their edges. Stamen shorter than the calyx,
sometimes 10, but generally from 5 to 8, of which several are
short and imperfect. Germen superior, ovate. Styles forked-
ing. Stigmas downy. Seed enclosed in the permanent hard-
ened calyx, often solitary (as several writers remark); but we
have found two, or at least the undoubted rudiments of two.

1870

Gen. Chas. Smith and his Command
and his family
and his family
and his family
and his family





Oct. 1. 1872. "Barbadoes" (L.)

SCLERANTHUS perennis.

*Perennial Knawel.**DECANDRIA Digynia.*

GEN. CHAR. *Cal.* of one leaf. *Cor.* none. *Seeds* two, enclosed in the calyx.

SPEC. CHAR. Calyx of the ripe fruit with obtuse incurved teeth. Stems prostrate.

SYN. *Scleranthus perennis.* *Linn. Sp. Pl.* 580. *Huds. Fl. An.* 178. *Witb. Bot. Arr.* 437.

Knawel incanum flore majore, perenne. Raii Syn. 160. *t.* 5. *f.* 1.

THIS is much more rare than the preceding, having hitherto been observed only in Norfolk and Suffolk, always on the driest barren sandy heaths. We received it from the neighbourhood of Bury, by favour of W. Mathew, Esq. flowering in November, for it is later in that respect than authors mention.

The root is said to be perennial, but that we have not been able to verify. Stems perfectly prostrate and close pressed to the ground, downy in the upper part, often purplish, much branched, especially towards their extremities. Leaves glaucous, "covered with shining pellucid tubercles," according to Mr. Mathew's remark, and sometimes downy. Segments of the calyx with a more membranous border than in *S. annuus*, their points much more obtuse and curved inward. The earlier flowers in the end of summer are of a very silvery appearance, and attract the eye at a distance. Filaments not all perfect. Calyx in the flowering state cloven rather more than half way down, but not so when the germen swells, externally pubescent. When growing old the whole plant becomes of a reddish brown. Dillenius's figure in Ray's Synopsis is too large and upright, and shews nothing that could serve to discriminate so difficult a plant.

SCLERANTHUS

Perennial Knave

DECAENIA

Spec. Char. Cal. of one leaf. Cor. none. Stam. two, enclosed in the calyx.

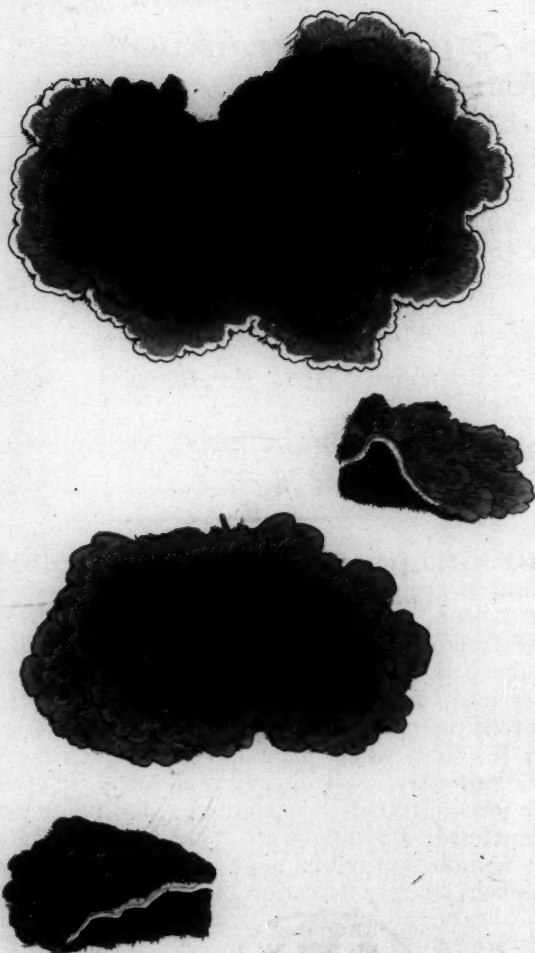
Spec. Char. Calyx of the ripe fruit with obtuse, curved teeth. Stam. prostrate.

Syn. Scleranthus perennis. Linn. Sp. Pl. 280. Hall. Pl. the 178. Willd. Bot. Ber. 437.

Knave in common from various persons. Kalm 37.

This is much more rare than the preceding, having hitherto been observed only in North and South America on the dried barren sandy heaths. We received it from the neighbourhood of New York, by favour of Mr. Mathew, Esq. flowering in November for it is later in that respect than authors mention. The root is said to be perennial, but that we have not been able to verify. Stems prostrate and close pressed to the ground, downy in the upper part, often purplish, much branched, especially towards their extremities. Leaves glaucous, "covered with shining pellucid tubercles," according to Mr. Mathew's remarks, and sometimes downy. Segments of the calyx with a more membranous border than in *S. annuus*, their points much more obtuse and curved inward. The earliest flowers in the end of summer are of a very lively appearance, and attract the eye at a distance. The plants not all perfect. Calyx in the flowering state closer rather more than half way down, but not so when the germ is well developed. When growing close the whole plant becomes of a reddish brown. Billingham's figure in Ray's Synops. is too large and upright, and shows nothing that could serve to distinguish it from a plant.





L I C H E N plumbeus.

*Lead-coloured spongy Lichen.*CRYPTOGAMIA *Alga.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated. Segments lobed, obtuse, greyish; clothed underneath with very thick, blueish, spongy down. Shields small, flat, rusty-coloured; their margins entire.

SYN. Lichen plumbeus. *Lightf. Scot.* 826. *t.* 26. *f.* 2. *With. Bot. Arr.* v. 3. 187.L. cæruleus. *Huds. Fl. An.* 531. *Dicks. H. Sicc. fasc.* 10. 24.Lichenoides tenue et molle, Agarici facie. *Dill. Musc.* 179. *t.* 24. *f.* 73.

BROUGHT from Cardiganshire last summer by Dr. Smith. It grows on trunks of trees, in the mountainous counties of Great Britain, not unfrequently.

The fronds are remarkably thick and cork-like, elevated from the bark on which they grow by a dense spongy coat of blue or lead-coloured down, that is often prominent and visible beyond the margin of the leaf, which seems to be forced up by it. The whole plant has very much the texture of *Boletus versicolor*, as Dillenius well observed; though, not having seen it recent, his description and figure are far from excellent. Mr. Lightfoot's are much better. The upper surface is smooth, but not shining, often longitudinally wrinkled. The shields are very numerous, scattered over the disk of the frond, and often clustered and confluent, of a small size, flat, reddish-brown or rusty-coloured, with an entire margin nearly of the same colour. Specimens which bear no shields are frequently nearly covered with grey granulations or warts, which have been presumed to be the male flowers, and are what Hedwig takes for such. We are inclined to suspect them to be rather analogous to *gemma*, or the bulbs of *Lilium bulbiferum*, *Dentaria bulbifera*, &c. and that (as in those) the plant which bears them has a less tendency to bear flowers or seeds; though these warts do also occur on the shield-bearing fronds. We have never however traced them to young plants.

L I C H E N plumbeus.

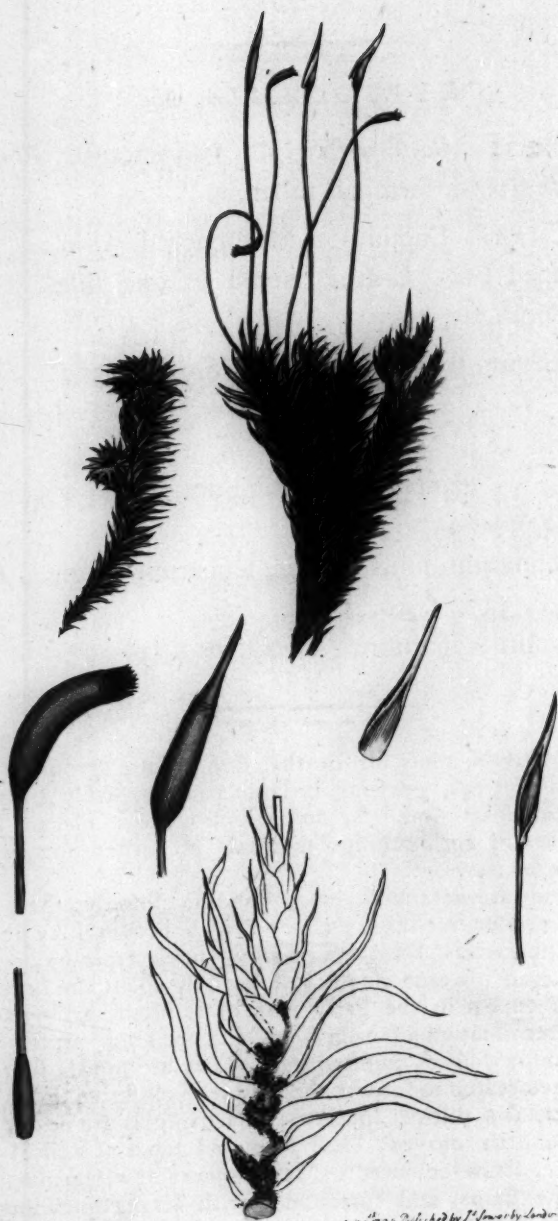
Lead-coloured Spongy Lichen.

CRYPTOGAMIA. Vex.

GEN. CHAR. Male scattered with
 Female, imbricate or tubercles, in which the
 seeds are imbedded.
 SPEC. CHAR. Imbricated. Sterile lobes, obtuse,
 greyish; clothed and densely with very thick,
 bluish, spongy, downy, blackish, finally flat, fatty-
 coloured, thin margins entire.
 SYN. Lichen plumbeus, L. Sp. 816. t. 26.
 f. 2. Wulfen, Bot. t. 3. 187.
 L. carnulicatus, Hark. Fl. 231. Dieb. H. 24.
 f. 10. 25.
 Lichenoides tenuis et molle, Agrost. fascic. Dil.
 Hark. 1. 9. 24. f. 23.

BROUGHT from Carolina, in the manner by Dr. Smith.
 It grows on trunks of trees, in the most common countries of
 Great Britain, not unfrequently.
 The fronds are remarkably thin and web-like, elevated
 from the part on which they grow by a spongy coat of
 blue or lead-coloured down, that is very prominent and vis-
 cile beyond the margin of the leaf, which seems to be forced
 up by it. The whole plant has very much the texture of
Helian vesiculosus, as *Dillenius* well observed; though, not
 having seen it recent, his description and figure are far from
 excellent. Mr. Lichstein's are much better. The upper sur-
 face is smooth, but not shining, often somewhat wrinkled.
 The thickets are very numerous, scattered over the disk of the
 frond, and often clustered and collected into a small flat, like
 reddish-brown or rusty-coloured, with an entire margin in nearly
 of the same colour. Sterile fronds which bear no thickets are fre-
 quently nearly covered with grey tubercles or warts, which
 have been presumed to be the male flowers, and are what
 Hedwig takes for such. We are inclined to suspect them to be
 rather analogous to gemmae, or the bulbs of *Lichen fuliginosus*,
Dillenius has shown, &c. and that (as in those) the plant which
 bears them has a less tendency to bear flowers or seeds; though
 these warts do also occur on the fruit-bearing fronds. We
 have never however traced them to young plants.





no. 1730. Del. by J. Smarby-Lund.

B R Y U M scoparium.

Broom Bryum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsf.* with a lid. *Veil* smooth. *Flower-stalk* from a terminal tubercle.

SPEC. CHAR. Capsules a little curved, with an awl-shaped lid. Leaves curved to one side. Stem reclining.

SYN. *Bryum scoparium.* *Linn. Sp. Pl.* 1582. *Huds. Fl. An.* 483. *With. Bot. Arr.* v. 3. 106. *Relb. Cant.* 403. *Curt. Lond. Fasc.* 1. t. 69.

B. erectis capitulis angustifolium, caule reclinato. Raii Syn. 95.

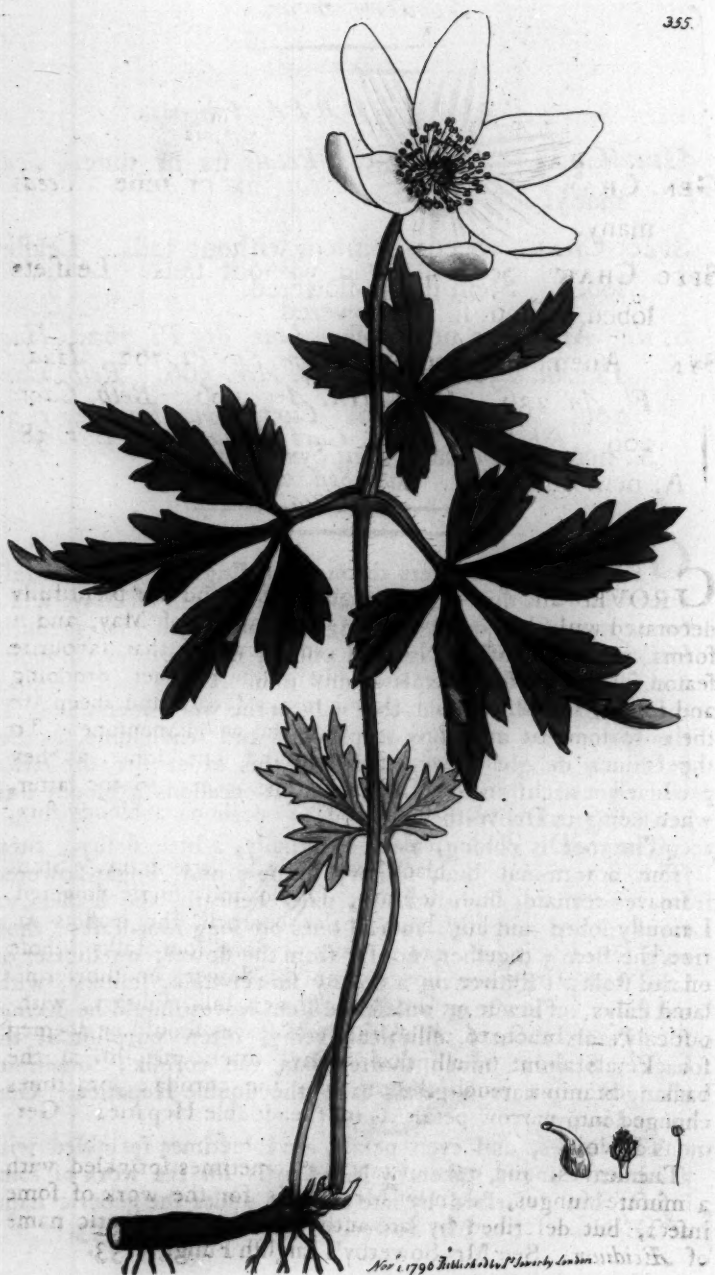
B. reclinatum, foliis falcatis, scoparum effigie. Dill. Musc. 357. t. 46. f. 16.

Dicranum scoparium. Sibth. Ox. 281.

A COMMON moss on heaths, dry pasture ground, and the trunks of trees, growing in large patches, easily discernible by their silky glossiness, and which make an elegant kind of artificial turf for clothing the mould of garden pots, when kept in the house.

The stems are perennial, long, standing close together, but a little curved or reclining; clothed with brown silky down, and with numerous, thick-set, narrow, finely tapering, entire leaves, curved towards one side, especially about the summit. The stalks appear in the early part of summer, arising from the scaly termination of each stem, and are long, erect, of a reddish shining yellow, and twisted. They are mostly solitary, and we have reason to suspect the kind with clustered stalks, see *Dill. fig. D*, is a distinct species. The capsules are nearly cylindrical, a little curved. Lid long and taper. Veil of the same figure, straw-coloured. Male flowers few, terminating some of the stems, and surrounded with leaves spreading in the form of a star.





ANEMONE nemorosa.

*Wood Anemone.**POLYANDRIA Polygynia.*

GEN. CHAR. *Cal.* none. *Petals* six or nine. *Seeds* many.

SPEC. CHAR. *Seeds* pointed, without tails. *Leaflets* lobed. *Stem* single-flowered.

SYN. *Anemone nemorosa.* *Linn. Sp. Pl.* 762. *Huds. Fl. An.* 236. *With. Bot. Arr.* 566. *Relb. Cant.* 209. *Sibth. Ox.* 170. *Curt. Lond. Fasc.* 2. t. 38. *A. nemorum alba.* *Raii Syn.* 259.

GROVES and thickets throughout England are plentifully decorated with this elegant plant in the month of May, and it forms one of the most pleasing ornaments of that favourite season. The blossoms expand only in fine weather, drooping and folding up their petals against rain. Goats and sheep are the only domestic animals that will eat the wood anemone. To the former its acrimony is pleasant and wholesome, as they peculiarly delight in vegetables of this order; to the latter, when not accustomed to such food, it occasions a bloody flux, according to Dr. Withering.

The root is oblong, black externally, a little fleshy. Stem from a terminal bud, solitary, simple and single-flowered. Leaves ternate, slightly hairy, paler beneath, the leaflets variously lobed and cut: radical ones on long foot-stalks: those on the stem 3 together, not far from the flower, on shorter dilated stalks. Flower on a downy flower-stalk, solitary, without calyx or bractæ, unless the stem-leaves should be deemed so. Petals about 6, elliptical, veiny, often purplish at the back. Stamina much shorter than the corolla; sometimes changed into narrow petals as in the double Hepatica. Germens downy.

The leaves, and even petals, are sometimes sprinkled with a minute fungus, taken by Mr. Curtis for the work of some insect, but described by late authors under the generic name of *Æcidium*. See Mr. Sowerby's English Fungi, t. 53.

ANEMONE nemorosa.

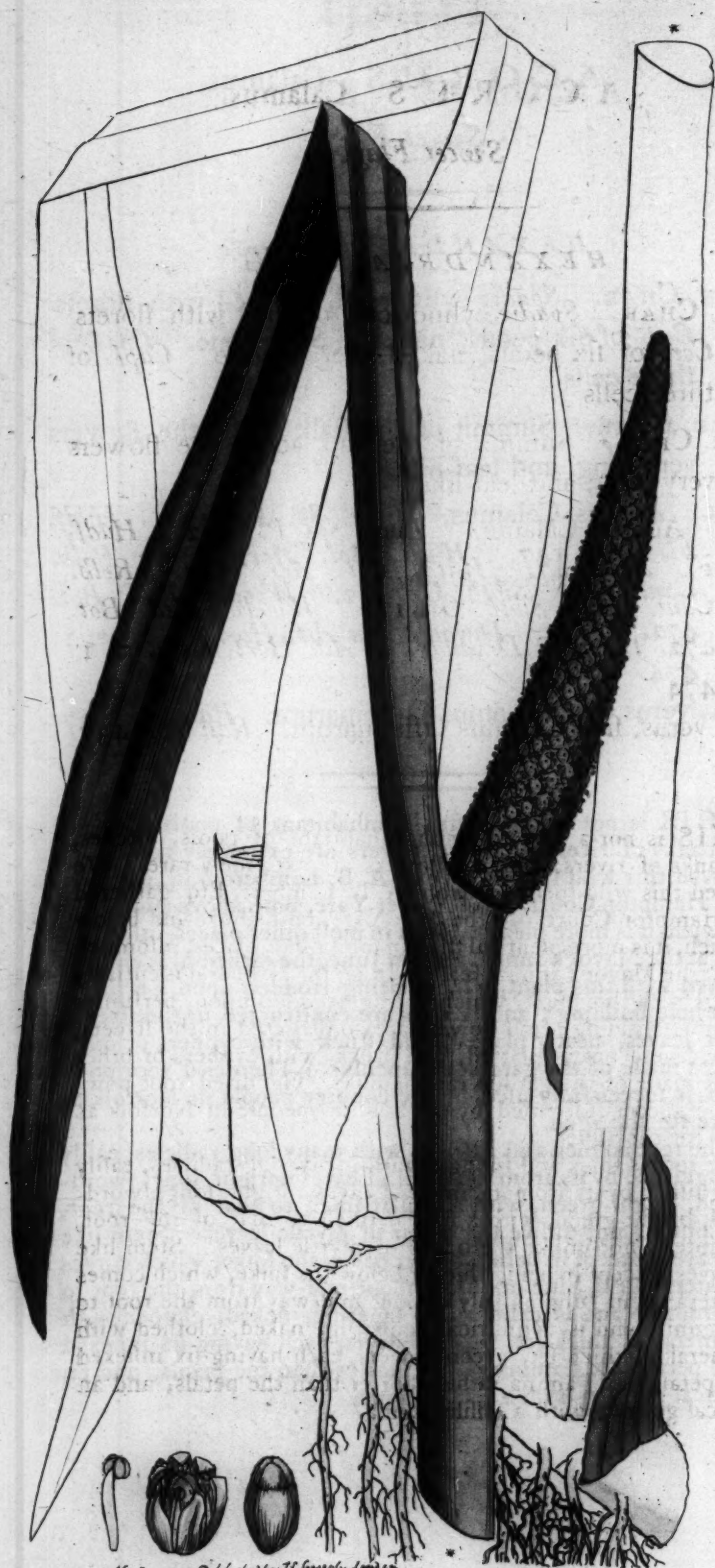
Wood Anemone.

POLYANDRIA Polygama.

Gen. Char. Cal. none. Petals six or nine. Seeds many.
Spec. Char. Stems pointed, without tails. Leaves lobed. Stem single-flowered.
Syn. Anemone nemorosa. Lam. Sp. Pl. 762. Hook. Fl. Brit. 236. Willd. Bot. Ber. 366. Rabb. Cant. 209. Webb. Gr. 170. Curt. Bot. Pug. 2. 1. 38.
A. nemorosa. Lam. Syn. 236.

CROFT? and others throughout England are plentifully
decorated with this elegant plant in the month of May, and it
forms one of the most pleasing ornaments of that season in
the garden. The leaves expand only in the morning, drooping
and folding up their stems against rain. Seeds and they are
the only ones which will eat the wood anemone. To
the former its section is black and whole, as they
are slightly dilated in the middle of the stem; to the latter,
when the anemone is in flower, it appears a bloody red,
according to Dr. Willd. 236.
The root is oblong, black externally, a little fleshy. Stems
from a terminal bud, solitary, simple and single-flowered.
Leaves ternate, slightly hairy, pale beneath, the leaflets ve-
tically lobed and cut; radical ones on long foot-stalks; those
on the stem shorter, not far from the flower, on short di-
luted stalks. Flower on a downy flower-stalk, solitary, with
out calyx or bract, and its stem-leaves should be deemed
so. Petals about 6, slightly veined, often purplish at the
back. Stamens much shorter than the corolla; sometimes
changed into narrow petals as in the double Japanese. Cor-
olla downy.
The leaves, and even petals are sometimes tinged with
a minute fungus, taken by Mr. Curtis for the work of some
insect, but described by late authors under the generic name
of Achmia. See Mr. Bower's Fungus, 1. 23.





New York 1890 Published by J. Sowerby London

ACORUS Calamus.

*Sweet Flag.**HEXANDRIA Monogynia.*

GEN. CHAR. *Spadix* cylindrical, clothed with florets.
Cor. of six petals, naked. *Style* none. *Caps.* of three cells,

SPEC. CHAR. Summit of the stalk above the flowers very long, and leaf-like.

SYN. *Acorus Calamus.* *Linn. Sp. Pl.* 462. *Huds. Fl. An.* 147. *With. Bot. Arr.* 357. *Relb. Cant.* 140. *Sibth. Ox.* 112. *Woodv. Med. Bot.* 472. *t.* 173. *Dryandr. in Ait. Hort. Kew.* v. 1. 474.

A. verus, five *Calamus Officinarum.* *Raii Syn.* 437.

THIS is not a very common inhabitant of pools, ditches, and banks of rivers, and the flowers are extremely rare. We received this wild specimen from A. B. Lambert, Esq. gathered near Hampton Court. In the river Yare, both above and below Norwich, it is more plentiful than in most other places, infomuch that, at the Mayor's annual feast in June, the cathedral is entirely strewed with this plant, which, being trodden upon, perfumes the whole building; and bowers are constructed in the streets, of its leaves, neatly platted, and stuck with cyphers or other devices made of the garden ranunculus. The dried root powdered is successfully used by the country people in Norfolk as a cure for the ague.

The root is thick and spongy, with many long radicles, easily distinguished by its aromatic smell. Leaves upright, long, sword-shaped, bright-green, with a similar smell to that of the root, but fainter; not unlike the odour of myrtle leaves. Stem like the leaves, except in being thicker below the spike, which comes out laterally (in June or July), about mid-way from the root to the summit, and is cylindrical, tapering, naked, clothed with innumerable, thick-set, green flowers, each having six inflexed equal petals, six stamina rather shorter than the petals, and an elliptical germen with a sessile stigma.

A. C. O. R. U. S. Calamagrostis

Stem Flag.

HEXANDRIA. Monogamia.

Grass. Chasm. Spikes cylindrical, clothed with flowers.
Cor. of six petals, naked. Style none. Caps. of
three cells.

Spec. Chasm. Summit of the stalk above the flowers
very long, and leaf-like.

Syn. Acorus Calamagrostis. Linn. Sp. Pl. 461. Hook.
Fl. Brit. 147. Willd. Bot. Ber. 357. R. & B.
Cant. 140. Sibth. Ox. 112. Hook. Mich. Bot.
470. t. 173. Dromed. in Brit. Herb. Kew. v. 1.

474.

A. vulgaris five Calamagrostis Ostrinaria. R. & B. 437.

THIS is not a very common inhabitant of pools, ditches,
and banks of rivers, and the flowers are extremely rare. We
received this with specimens from A. B. Lambert, Esq. gathered
near Hampton Court. In the river Yare, both above and below
Norwich, it is more plentiful than in most other places; indeed
that at the Mayor's annual visit in June, the cathedral is usually
strewn with this plant, which being trodden upon, perfume
the whole building; and flowers are collected in the street
of its leaves, nearly planted, and that with capitals or other
devices made of the garden variegated. The dried root pos-
sessed is much used by the country people in Norfolk as
a cure for the scurf.

The root is thick and fleshy, with many long radicles, easily
distinguished by its aromatic smell. Leaves upright, two-
ranked, bright green, with a dusky tinge to base of the root,
not linear; for under the point of every leaf, from like
the leaves, cut by the wind, is a small, which comes
out towards the base of the leaf, about two inches from the root to
the summit, and is cylindrical, tapering, naked, clothed with
innumerable, thick-set, green flowers, each having six inserted
equal petals, the stamens rather longer than the petals, and an
oblique germ with a little stigma.

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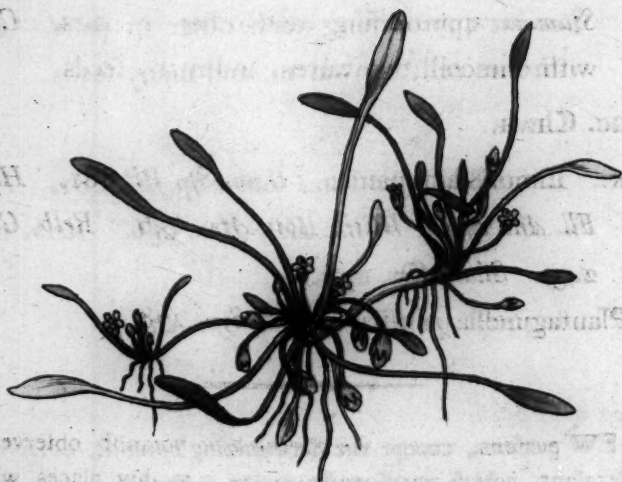
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LIMOSELLA aquatica.

*Mudwort.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* five-cleft. *Cor.* five-cleft, equal.
Stamina approaching each other in pairs. *Caps.*
 with one cell, two valves, and many seeds.

SPEC. CHAR.

SYN. *Limosella aquatica.* *Linn. Sp. Pl.* 881. *Huds.*
Fl. An. 276. *With. Bot. Arr.* 656. *Relb. Cant.*
 245. *Sibth. Ox.* 197.
Plantaginella palustris. *Raii Syn.* 278.

FEW persons, except the scrutinizing botanist, observe this little plant, which occasionally occurs in muddy places where water has stagnated during the preceding winter. The Rev. Mr. Abbot sent it from Bedfordshire, flowering in the middle of July.

The root is annual, throwing out naked cylindrical prostrate runners, which take root at their extremities, and form new plants. Leaves radical, on long foot-stalks, spatulate, smooth, entire; we have not found them involute. Flowers small, radical, on simple flower-stalks, which become inflexed as the fruit ripens. Segments of the calyx sharp, the 2 uppermost least deeply divided. Corolla with a swelling tube; the limb in 5 equal segments, whitish without, red on the inside, the 2 uppermost of which are a little inflexed. Stamina ascending, divaricated in pairs towards each side of the flower. Style declining, with a blunt rough stigma. Capsule globular, with a groove along its upper side. Seeds very numerous.

LIMOSELLA aquatica.

Mudwort.

DIDYKALIA angustifolia.

GEN. CHAR. Cal five-lobed. Cor. five-lobed, equal.
 Stamens approaching each other in pairs. Caps.
 with one cell, two valves, and many seeds.

SPEC. CHAR.

Stems. Limosella aquatica. Lam. Sp. Pl. 881. Herb.

Fl. Apr. 1850. With. Bot. Am. Soc. Relb. Cont.

445. Stems. Oct. 1850.

Plantaginella polifolia. Lam. Sp. Pl. 881.

FEW persons, except the botanizing botanist, observe this little plant, which occasionally occurs in marshy places where water has stagnated during the preceding winter. The Rev. Mr. Abbott sent me from Bedfordshire, flowering in the middle of July.

The root is annual, throwing out naked cylindrical prostrate runners, which take root at thick extremities, and form new plants. Leaves radical, on long foot-stalks, spatulate, smooth, entire; we have not found them involute. Flowers small, terminal, on simple leafy stalks, which become inflexed as the fruit ripens. Sepals of the calyx three, the uppermost leaf deeply divided. Corolla with a swelling tube; the limb in 2 equal segments, whitish without, red on the inside, the uppermost of which are a little inflexed. Stamens ascending, divaricated in pairs towards each side of the flower. Style declinate, with a blunt rough stigma. Capsule globular, with a groove along its upper face. Seeds very numerous.

OPHRYD

Marjoram

STANDARDIS

Gen. Char. Aerial, consisting of a single, upright, branched stem.

Spec. Char. Root of clustered fleshy fibres. A pair of heart-shaped leaves on the stem. Nodes with four angles.

Sex. Organs in the leaf axils. Pet. 5. Sep. 5. Anthers 5. Style 1. Ovary 1. Capsule 1. Seed 1.

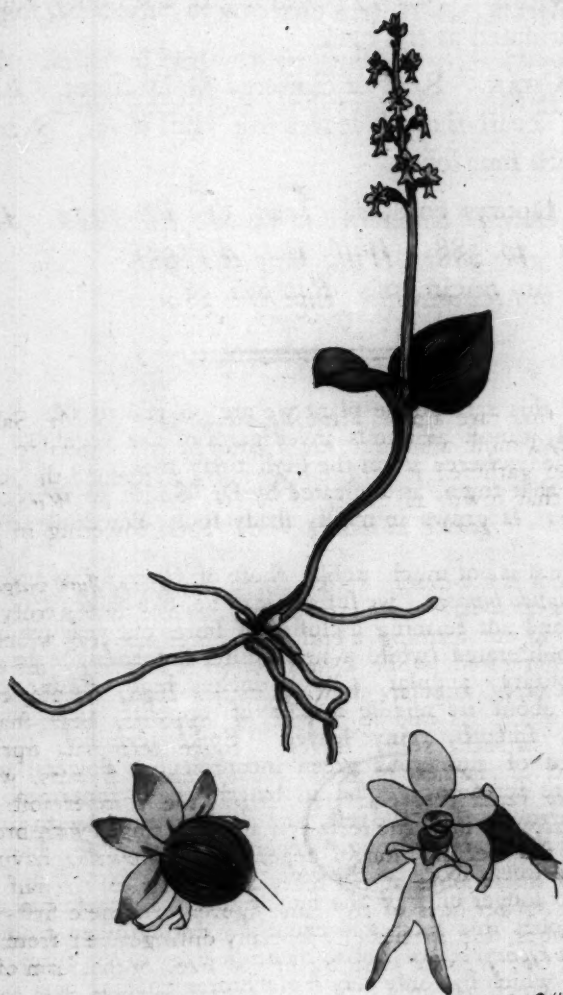
Roots numerous. Stem 1/2 ft.

For the purpose of preparing a standard of the medicinal quality of the vegetable, the standard was first cultivated in the best soil, and the best of the seed was selected by Dr. Smith in 1810. The standard was then cultivated in the same soil, and the best of the seed was selected by Dr. Smith in 1811.

The standard was then cultivated in the same soil, and the best of the seed was selected by Dr. Smith in 1812. The standard was then cultivated in the same soil, and the best of the seed was selected by Dr. Smith in 1813.

The standard was then cultivated in the same soil, and the best of the seed was selected by Dr. Smith in 1814. The standard was then cultivated in the same soil, and the best of the seed was selected by Dr. Smith in 1815.





No. 1790 Bull. chab. J. L. L.

OPHRYS cordata.

Heart-leaved Mountain Ophrys.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Root of clustered fleshy fibres. A pair of heart-shaped leaves on the stem. *Nectary* with four lobes.

SYN. *Ophrys cordata*. *Linn. Sp. Pl.* 1340. *Huds. Fl. An.* 388. *With. Bot. Arr.* 988.

Bifolium minimum. *Raii Syn.* 385.

FOR this rare alpine plant we are obliged to Mr. Salt of Sheffield, a most assiduous investigator of the vegetable creation, who gathered it on the high turfy moors to the south-west of that town, as indicated by Dr. Smith in *Withering's Bot. Arr.* It grows in moist, shady spots, flowering in June or July.

The root is not much unlike those of *Ophioglossum vulgatum* and *Osmunda lunaria*; we suspect it to be, like those, truly perennial, and not forming a cluster of fibres one year which are totally obliterated (while a new cluster is forming) the next. Stem solitary, angular, 4 or 5 inches high, simple, erect, bearing about its middle a pair of opposite, heart-shaped, pointed, smooth, veiny leaves. Spike terminal, upright, composed of numerous green inconspicuous flowers, whose petals are spreading, equal in length, the 2 innermost only being narrower than the rest, and all often tinged with brown. Lip of the nectary long, dependent, yellowish, having 2 extended linear lobes at the base, and being cloven half way into two longer ones of the same figure. By these first-mentioned lobes this species is essentially distinguished from the common *Ophrys ovata* (not to mention size, or the form of the leaves), which has only very slight prominences in that part of its nectary. The capsule is globose, purplish, crowned with the permanent withering corolla, and bursting by lateral clefts.

OPHRYS cordata.

Heart-leaved Mountain Ophrys.

CYNANDRIA Diandria.

GEN. CHAR. Nectary consisting of a lip only, slightly
 carinated at the base.

SPEC. CHAR. Root of clustered fleshy fibres. A pair
 of heart-shaped leaves on the stem. Nectary
 with four lobes.

SYN. Ophrys cordata. Linn. Sp. Pl. 1340. Hall.
 Fl. Am. 388. Willd. Bot. Ber. 988.
 Bickham mininum. Kunz Sm. 383.

FOR this rare alpine plant we are obliged to Mr. Sain of
 Sheffield, a most zealous investigator of the vegetable crea-
 tion, who gathered it on the high turf moors to the south-
 west of that town as indicated by Dr. Smith in *Woodsley*.
 It grows in moist, shady spots, flowering in June
 or July.
 The root is not much unlike those of *Ophrys* *lutea* and
O. manducaria; we suspect it to be, like those, truly per-
 ennial, and not forming a cluster of stems one year which are
 totally obliterated (with a new cluster forming) the next.
 Stem solitary, angular, 4 or 5 inches high, simple, erect,
 bearing about its middle a pair of opposite, heart-shaped,
 pointed, smooth, veiny leaves. Spike terminal, upright,
 composed of numerous green inconspicuous flowers, whose
 petals are somewhat equal in length, the 2 innermost only
 being narrower than the rest, and all often tinged with brown.
 Lip of the nectary long, depressed, yellowish, having a
 extended linear lobes at the base, and being cloven half way
 into two longer ones at the same point. The whole dissemi-
 nated lobes this species is essentially distinguished from the
 common *Ophrys* *lutea* (not to mention *lutea*, or the form of the
 leaves), which has only very slight prominence in that part of
 its nectary. The capsule is ribbed, purplish, crowned with
 the permanent whitening corolla, and bursting by lateral cells.





FONTINALIS antipyretica.

Greater Water-moss.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* with a lid and veil, sessile, enclosed in an imbricated calyx.

SPEC. CHAR. Leaves pointed, folded so as to form a keel, disposed in three ranks. Fructification lateral.

SYN. *Fontinalis antipyretica.* Linn. *Sp. Pl.* 1571.
Huds. *Fl. An.* 467. With. *Bot. Arr.* v. 3. 75.
Relb. *Cant.* 395. Sibth. *Ox.* 293.

F. major, foliis triangularibus complicatis, capitulis in foliorum alis sessilibus. Raii *Syn.* 79.

F. triangularis major complicata, e foliorum alis capsulifera. Dill. *Musc.* 254. t. 33. f. 1.

NOT uncommon in flow deep waters, growing upon rocks, posts, &c. floating with the stream considerably below the surface, and very rarely producing any fructification.

The root is small, but strong, and perennial. Stem slender, tough and wiry, much branched, from 3 or 4 inches to a foot long, clothed with numerous leaves, which are imbricated generally in three rows, of an ovate sharp-pointed form, but compressed so as to become acutely carinated, entire in the margin, their colour a deep transparent green. Capsules lateral, solitary, on very short scaly flower-stalks, elliptical, entirely invested with imbricated scales, and their orifice ciliated with about 16 red taper teeth. The lid is conical, and the veil of the same form, but rather longer.

Linnaeus informs us, in his *Flora Suecica*, that the Swedes "stuff in this moss between their chimneys and wooden walls, to guard the latter from fire:" a passage which English writers have greatly misapprehended; for, without supposing any thing very incombustible in its nature, it may answer the purpose above described merely by preventing the passage of air.

FONTINALIS anhypocistis.

Greater Water-moss.

CRYPTOGAMIA.

Gen. CHAR. Capsule with a lid and neck, sessile, enclosed in an imbricated calyx.

Spec. CHAR. Leaves pointed, folded so as to form a keel, disposed in three ranks. Frustrification lateral.

Syn. Fontinalis anhypocistis. Lam. Sp. Pl. 1271.

Hab. Fl. An. 187. Phil. Bot. An. v. 3. 75.

Rel. C. 395. St. J. Oct. 1893.

F. major, collis truncatolobus complanatus, capitatus in foliolum alis sessilibus. Rab. Syn. 79.

F. triangularis, major, complanatus, c. foliolum alis capitatum. Don. Bot. 254. v. 33. 1.

Not uncommon in low damp waters, growing upon rocks, pebbles, &c. floating with the stream considerably below the surface, and very rarely producing any fructification. The roots are small, but strong, and perennial. Stem slender, tough and woody, much branched, from 2 or 3 inches to a foot long, clothed with narrow, linear, which are imbricated generally in three rows, off an ovate sharp-pointed base, but compressed so as to become flatly continued, entire at the margin, their colour a deep iridescent green. Capsules linear, solitary, on very short stalks, somewhat, elongated, minutely imbricated with imbricated scales, and their ovules curved with about 10 red paper coats. The lid is entire, and the veil of the same form, but rather longer. Linnaeus informs us, in the Plant. Suecica, that the Swedish name for this moss is *Fontinalis*, and wooden water to grow the latter from the *Fontinalis*, which English writers have greatly misapplied; for, without any such thing very inconspicuous in its nature, it may answer the purpose above described merely by preventing the passage of air.





B R Y U M carneum.

Shining Bryum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsf.* with a lid. *Veil* smooth. *Flower-stalk* from a terminal tubercle.

SPEC. CHAR. Capsules pendulous, somewhat globular. Leaves alternate, acute, and entire.

SYN. *Bryum carneum.* *Linn. Sp. Pl.* 1587. *Huds. Fl. An.* 489. *With. Bot. Arr. v.* 3. 112.

B. nitidum, foliis Serpilli pellucidis angustioribus, reflexis capitulis subrotundis, carnei coloris, in pediculis brevioribus. *Raii Syn.* 102.

B. lanceolatum pellucidum, capsulis rotundis, pendulis, carneis. *Dill. Musc.* 400. *t.* 50. *f.* 69.

SENT from Cambridgeshire by the Rev. Mr. Hemsted. It is an uncommon, and not generally known species, growing in moist shady places, among grass, and by the margins of little rills, bearing its fruit in the spring.

Root perennial. Stems short, slender, simple at first, clothed with thick-set, alternate, lanceolate, pointed, entire leaves, of a bright pellucid green. Stalk terminal, a little longer than the stems, reddish, shining, pellucid and succulent. Capsule pendulous, when young green, pear-shaped and very obtuse, with a depressed lid; but as it ripens becoming of a flesh-coloured red, and when arrived at maturity the orifice is much dilated, so that in some specimens the capsule may be called almost campanulate. Our figure is not in that advanced state. The veil we have not seen. Dillenius represents it as awl-shaped and very tender, falling off the young capsules before they begin to nod. When the fruit is ripe, young shoots are protruded from the top of the stem, so that the fruit-stalks are no longer terminal.

We have compared ours with the specimens of Dillenius.

B R Y U M carinatum.

Shining Brown.

CRYPTOGAMIA. Mosses.

- GEN. CHAR. Caps. with a lid. Vel smooth. Throats
fall from a terminal tubercle.
SPEC. CHAR. Capsules pendulous, somewhat globular.
Leaves alternate, acute, and entire.
SYN. Bryum carinatum. L. m. 29. p. 1527. Huds.
Pl. Br. 489. Wm. Br. 112.
B. nitidum, lobis Scapulis peltatis angustioribus,
reflexis capsulis subrotundis, carnei coloris, in
pediculis brevioribus. Wm. Br. 102.
B. lanceolatum peltatis, capsulis rotundis, pen-
dulis, carnis. Dill. Moss. 400. N. 20. 7. 69.

SENT from Cambridge by the Rev. Mr. Hemsted. It
is an uncommon, and not generally known species, growing
in moist shady places, among grass, and by the margins of
little rills, bearing its fruit in the spring.
Root perennial. Stems low, branched, simple at first, clothed
with thick set, alternate, lanceolate, pointed, entire leaves,
of a bright yellowish green, terminal, a little longer
than the stem, peltate, and sometimes
capsules pendulous. The capsule may be
much dilated, so that the lid is forced out, and
is then directed upwards. Our figure is not further advanced
than the first. The lid we have seen. The capsule is
swellings and very tender, falling off the young capsule be-
fore they begin to rot. When the lid is ripe, young shoots
are protruded from the top of the lid, so that the fruit itself
is no longer terminal.
We have compared ours with the specimens of Dilleni.



SYSTEMATICAL INDEX

TO

VOL. V.

<i>Monandria.</i>		<i>Polyandria.</i>	
	Tab.		Tab.
C HARA vulgaris	— 336	Aquilegia vulgaris	— 297
		Anemone nemorosa	— 355
		Adonis autumnalis	— 308
<i>Triandria.</i>		<i>Didynamia.</i>	
Crocus fativus	— 343	Limnifella aquatica	— 357
— vernus	— 344		
Eriophorum alpinum	— 311	<i>Tetradynamia.</i>	
Nardus stricta	— 290	Iberis nudicaulis	— 327
Briza media	— 340	Dentaria bulbifera	— 309
Dactylis glomerata	— 335		
Cynofurus cristatus	— 316	<i>Monadelphina.</i>	
Lolium perenne	— 315	Geranium phæum	— 322
<i>Tetrandria.</i>		<i>Diadelphina.</i>	
Cornus suecica	— 310	Vicia sativa	— 334
Potamogeton pectinatum	— 323		
<i>Pentandria.</i>		<i>Polyadelphina.</i>	
Convolvulus arvensis	— 312	Hypericum perforatum	— 295
— sepium	— 313	— dubium	— 296
— Soldanella	— 314		
Campanula latifolia	— 302	<i>Syngenesia.</i>	
Oenanthe pimpinelloides	— 347	Hieracium sabaudum	— 349
— peucedanifolia	— 348	Artemisia campestris	— 338
Viburnum Lantana	— 331	Solidago Virgaurea	— 301
— Opulus	— 332		
Statice reticulata	— 328	<i>Gynandria.</i>	
<i>Hexandria.</i>		Satyrion repens	— 289
Asparagus officinalis	— 339	Ophrys cordata	— 358
Acorus Calamus	— 356		
Alisma ranunculoides	— 326	<i>Monœcia.</i>	
<i>Octandria.</i>		Carex ovalis	— 306
Epilobium palustre	— 346	— vulpina	— 307
Vaccinium Oxycoccus	— 319		
<i>Decandria.</i>		<i>Polygamia.</i>	
Scleranthus annuus	— 351	Acer Pseudo-platanus	— 303
— perennis	— 352	— campestre	— 304
Dianthus Armeria	— 317	<i>Cryptogamia.</i>	
Silene noctiflora	— 291	Osmunda Lunaria	— 318
Cotyledon Umbilicus	— 325	Buxbaumia foliosa	— 329
<i>Dodecandria.</i>		Phacum curvicolium	— 330
Lythrum hyssopifolium	— 292	Fontinalis antipyretica	— 359
Refeda luteola	— 320	Bryum scoparium	— 354
— lutea	— 321	— hygrometricum	— 342
Euphorbia stricta	— 333	— carneum	— 360
<i>Icosandria.</i>		Sphærocarpus terrestris	— 299
Cratægus torminalis	— 298	Lichen plumbeus	— 353
Sorbus Aucuparia	— 337	— nigrescens	— 345
Pyrus domestica	— 350	— Burgessii	— 300
		— perlatus	— 341
		— glomuliferus	— 293
		— læte-virens	— 294
		— resupinatus	— 305
		Tremella granulata	— 324

SYSTEMATICAL INDEX

VOL. V

756	Adiantum vulgare	Tab.	156	Adiantum vulgare	156
757	Adiantum nemorosum	157	Adiantum nemorosum	157	157
758	Adiantum autumnale	158	Adiantum autumnale	158	158
759	Adiantum autumnale	159	Adiantum autumnale	159	159
760	Adiantum autumnale	160	Adiantum autumnale	160	160
761	Adiantum autumnale	161	Adiantum autumnale	161	161
762	Adiantum autumnale	162	Adiantum autumnale	162	162
763	Adiantum autumnale	163	Adiantum autumnale	163	163
764	Adiantum autumnale	164	Adiantum autumnale	164	164
765	Adiantum autumnale	165	Adiantum autumnale	165	165
766	Adiantum autumnale	166	Adiantum autumnale	166	166
767	Adiantum autumnale	167	Adiantum autumnale	167	167
768	Adiantum autumnale	168	Adiantum autumnale	168	168
769	Adiantum autumnale	169	Adiantum autumnale	169	169
770	Adiantum autumnale	170	Adiantum autumnale	170	170
771	Adiantum autumnale	171	Adiantum autumnale	171	171
772	Adiantum autumnale	172	Adiantum autumnale	172	172
773	Adiantum autumnale	173	Adiantum autumnale	173	173
774	Adiantum autumnale	174	Adiantum autumnale	174	174
775	Adiantum autumnale	175	Adiantum autumnale	175	175
776	Adiantum autumnale	176	Adiantum autumnale	176	176
777	Adiantum autumnale	177	Adiantum autumnale	177	177
778	Adiantum autumnale	178	Adiantum autumnale	178	178
779	Adiantum autumnale	179	Adiantum autumnale	179	179
780	Adiantum autumnale	180	Adiantum autumnale	180	180
781	Adiantum autumnale	181	Adiantum autumnale	181	181
782	Adiantum autumnale	182	Adiantum autumnale	182	182
783	Adiantum autumnale	183	Adiantum autumnale	183	183
784	Adiantum autumnale	184	Adiantum autumnale	184	184
785	Adiantum autumnale	185	Adiantum autumnale	185	185
786	Adiantum autumnale	186	Adiantum autumnale	186	186
787	Adiantum autumnale	187	Adiantum autumnale	187	187
788	Adiantum autumnale	188	Adiantum autumnale	188	188
789	Adiantum autumnale	189	Adiantum autumnale	189	189
790	Adiantum autumnale	190	Adiantum autumnale	190	190
791	Adiantum autumnale	191	Adiantum autumnale	191	191
792	Adiantum autumnale	192	Adiantum autumnale	192	192
793	Adiantum autumnale	193	Adiantum autumnale	193	193
794	Adiantum autumnale	194	Adiantum autumnale	194	194
795	Adiantum autumnale	195	Adiantum autumnale	195	195
796	Adiantum autumnale	196	Adiantum autumnale	196	196
797	Adiantum autumnale	197	Adiantum autumnale	197	197
798	Adiantum autumnale	198	Adiantum autumnale	198	198
799	Adiantum autumnale	199	Adiantum autumnale	199	199
800	Adiantum autumnale	200	Adiantum autumnale	200	200



ALPHABETICAL INDEX

TO

VOL. V.

A		Tab.			Tab.
ACER	campestre	— 304	Hypericum	dubium	— 296
	Pseudo-platanus	— 303		perforatum	— 295
Acorus	Calamus	— 356	Iberis	nudicaulis	— 327
Adonis	autumnalis	— 308	Lichen	Burgessii	— 300
Alisma	ranunculoides	— 326		glomuliferus	— 293
Anemone	nemorosa	— 355		laete-virens	— 294
Aquilegia	vulgaris	— 297		nigrescens	— 345
Artemisia	campestris	— 338		perlatus	— 341
Asparagus	officinalis	— 339		plumbeus	— 353
Briza	media	— 340		resupinatus	— 305
Bryum	carneum	— 360	Limosella	aquatica	— 357
	hygrometricum	— 342	Lolium	perenne	— 315
	scoparium	— 354	Lythrum	hyssopifolium	— 292
Buxbaumia	foliosa	— 329	Nardus	stricta	— 290
Campanula	latifolia	— 302	Oenanthe	peucedanifolia	— 348
Carex	ovalis	— 306		pimpinelloides	— 347
	vulpina	— 307	Ophrys	cordata	— 358
Chara	vulgaris	— 336	Osmunda	Lunaria	— 318
Convolvulus	arvensis	— 312	Phacum	curvicolium	— 330
	sepium	— 313	Potamogeton	pectinatum	— 323
	Soldanella	— 314	Pyrus	domestica	— 350
Cornus	suecica	— 310	Refeda	lutea	— 321
Cotyledon	Umbilicus	— 325		luteola	— 320
Crataegus	torninalis	— 298	Satyrion	repens	— 289
Crocus	fativus	— 343	Scleranthus	annuus	— 351
	vernus	— 344		perennis	— 352
Cynofurus	crifatus	— 316	Silene	noctiflora	— 291
Dactylis	glomerata	— 335	Solidago	Virgaurea	— 301
Dentaria	bulbifera	— 309	Sorbus	Aucuparia	— 337
Dianthus	Armeria	— 317	Sphaerocarpus	terrestris	— 299
Epilobium	palustre	— 346	Statice	reticulata	— 328
Eriophorum	alpinum	— 311	Tremella	granulata	— 324
Euphorbia	stricta	— 333	Vaccinium	Oxycoccus	— 319
Fontinalis	antipyretica	— 359	Viburnum	Lantana	— 331
Geranium	phæum	— 322		Opulus	— 332
Hieracium	sabaudum	— 349	Vicia	fativa	— 334

ALPHABETICAL INDEX

100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	1496	1497	1498	1499	1500	1501	1502	1503	1504	1505	1506	1507	1508	1509	1510	1511	1512	1513	1514	1515	1516	1517	1518	1519	1520	1521	1522	1523	1524	1525	1526	1527	1528	1529	1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1540	1541	1542	1543	1544	1545	1546	1547	1548	1549	1550	1551	1552	1553	1554	1555	1556	1557	1558	1559	1560	1561	1562	1563	1564	1565	1566	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	--

I N D E X

OF THE ENGLISH NAMES

IN VOL. V.

	Tab.		Tab.
A DONIS, corn — — —	308	Lavender, matted sea — —	328
Anemone, wood — — —	355	Lichen, ball-bearing — —	293
Ash, mountain — — —	337	— bat's-wing, or blackish — —	345
Asparagus, common — —	339	— bright-green — — —	294
Bale-rocket — — —	321	— crowned — — —	300
Bell-flower, giant — — —	302	— lead-coloured spongy — —	353
Bind-weed, great — — —	313	— pearly — — —	341
— sea — — —	314	— reverfed — — —	305
— small — — —	312	Maple, common — — —	304
Bryum, broom — — —	354	— greater — — —	303
— shining — — —	360	Mat-grass — — —	290
— yellow twisting — — —	342	Mignonette, wild — — —	321
Buxbaumia, leafy — — —	329	Moonwort — — —	318
Candy-tuft, naked-stalked — —	327	Mudwort — — —	357
Carex, oval-spiked, or naked, — —	306	Navel-wort, common — —	325
— great — — —	307	Ophrys, heart-leaved mountain — —	358
Catchfly, night-flowering — —	291	Phalcum, crooked — — —	330
Chara, common — — —	336	Pheasant's-eye — — —	308
Cock's-foot grass, rough — —	335	Pink, Deptford — — —	317
Columbine, common — — —	297	Plantain, lesser water — —	326
Coral-wort, bulbiferous — —	309	Pond-weed, fennel-leaved — —	323
Cornel, dwarf — — —	310	Quaking-grass, common — —	340
Cotton-grass, alpine — — —	311	Quicken-tree — — —	337
Cranberry — — —	319	Rye-grass — — —	315
Cranesbill, dusky — — —	322	Saffron — — —	343
Crocus, autumnal — — —	343	Saint John's-wort, imperforate — —	296
— spring — — —	344	— perforated — — —	295
Darnel, perennial — — —	315	Satyrium, creeping — — —	289
Dog's-tail grass, crested — —	316	Service-tree, domestic — —	350
Dropwort, parsley water — —	347	— wild — — —	298
— sulphurwort water — — —	348	Southernwood, field — —	338
Dyer's-weed — — —	320	Sphærocarpus, reticulated — —	299
Elder, water — — —	332	Spurge, upright warty — —	333
Flag, sweet — — —	356	Sycamore — — —	303
Golden-rod, common — — —	301	Tremella, granulated — —	324
Grass-poly, hyssop-leaved — —	292	Vetch, common — — —	334
Guelder-rose, common — — —	332	Water-moss, greater — — —	359
— mealy — — —	331	Wayfaring-tree — — —	331
Hawkweed, shrubby — — —	349	Willow-herb, narrow marsh — —	346
Knawel, annual — — —	351	Yellow-weed — — —	320
— perennial — — —	352		

OF THE ENGLISH NAMES

[illegible]

